Clinical Lectures ON SOME STRAY SUBJECTS OF HOSPITAL SURGERY.

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LECTURE IV.

Among the lesser maladies that occasionally give great trouble to both patient and surgeon may be included the collections of albuminous fluid, occupying various localities about the back of the wrist, called

GANGLIONS.

These small swellings, composed of a toughish cyst, are formed on one or other of the numerous tendons of this region. They rarely increase to a considerable size, and are not often seen larger than a child's marble. Their cause must be referred to undue and excessive action of the tendon, or rather of the extensor muscle leading to the tendon on which it is placed. Why they occur on that particular tendon I do not know. My reason for so thinking is because I have treated many cases in the persons of violin players, in whom the malady has been confined to the left hand, the right or bow hand being free; and it is not uncommon in pianists who devote many hours of the day to the practice of their profession. But they are not confined exclusively to this class of persons. Although free from pain, they are unsightly, and are always attended with some weakness of the hand, probably of the extensor muscles only. They are usually treated by rupturing the sac, and allowing its contents to invade the surrounding tissue. The instrument of violence commonly employed, and which has been, doubtless, handed down and adopted for many generations, is a thick bound book. The force of the blow is necessarily great, and the rupture of the sac does not invariably follow. This entails the necessity of a second blow. It is not certain that the force may be applied in the exact direction. To say nothing of the pain and the shock to a delicate girl, this treatment is by no means attended with invariable success; for I have known the fragments of the sac restored to their original places, and the disease remain *in statu quo*. I advise you to adopt in great preference to this coarse and old-fashioned treatment the following, which rarely fails to obtain an early, if not an immediate, cure. Its object is to evacuate the *entire* contents of the cyst, and to bring its opposite surfaces into perfect apposition with each other. It is a small operation; but on the delicacy of its performance its success materially depends. Bending the hand forwards, in order to tighten the skin over the cyst, pass vertically into the centre of the tumour a broad-shouldered lancet. By a lateral movement of the instrument the orifice will be dilated, and the contents will freely escape. Now it is indispensable to the obliteration of the cyst that the whole of its contents should be evacuated—every drop and every fraction of a drop, to effect which the sac must be compressed and kneaded in every direction. Then apply a well-made thick compress of lint, and strap it down tightly with good plaster, and, lastly, a roller may be applied. In forty-eight hours the wound has healed, and the ganglion is seen no more.

In cases (and I suppose I have operated on a hundred) in which the operation I have described failed to cure the disease, the ganglion, as it will do when of long standing, had burrowed under the tendon. In one of these I attempted to dissect it out; but, in so doing, I denuded the tendon of its natural investment, and the result was permanent union between the tendon and the integument. I never recall the circumstances of this case, and it occurred upwards of twenty years ago, without painful regret. The larger examples of a similar affection to the above—in which the synovial sac, probably the anterior one, which extends beneath the anterior carpal ligament into the palm of the hand, is the seat, and from which abundance of small melon-pip like bodies are obtained—may be treated on the same principle. But the subsequent pressure must be great.

I wish to say a few words to you on the subject of

BURNS.

Surgeons have described this form of injury as affecting the human body in three degrees of severity. 1. When the skin alone is the seat of injury. 2. When the areolar tissue is involved. 3. When all the structures of the injured part are implicated. I shall not trouble you by enlarging on the various degrees of injury. I wish to draw your attention to the important subject of the treatment of burns and scalds in all their variety. Now, what is the treatment usually adopted, I do not say in this hospital nor in that, but adopted by the surgical profession generally, and especially by the medical authorities attendant on mines, foundries, and in our larger iron works? The affected parts are bathed in oil—carron oil, as it is called,—or oil and lime water in combination. The patient undergoes this process of immersion or local bathing in this very harmless but equally useless compound. The virtue of the oil, it would appear, is in a ratio with the quantity consumed on each case, and therefore the great curative remedy is poured on with boundless liberality. The limb is then placed in flannel, or more commonly in coarse cotton wool or wadding, and the patient is consigned to his bed. Now, observe, this treatment, be it good or be it bad, affords no relief from the exquisite suffering caused by a large burn, the pain of which continues uninterruptedly for several days, depriving the sufferer of sleep and indirectly of food. But in the end he recovers, and that, it would appear, is sufficient for the cause of surgery. But recollect that the cause of surgery can only be represented by surgery of the highest class, which demands the quickest recovery combined with the smallest amount of human suffering; and these essential objects are not obtained by carron oil. The principle I am anxious to insist on as far preferable to any involved in the carron oil treatment is exhibited in the results of the application of heat to any small burn on the hand, as from a drop of melted sealing-wax. The very smart pain occasioned by this trivial accident is entirely relieved by immersing the hand in hot water or by holding the hand to the fire for a few minutes. If this be a fact—viz., that by the brief application of an agent promoting pain (for *heat* is not essential) one important element of the injury, that of pain, is quickly relieved,—there must be some virtue in the principle involved. And there is a virtue, and a very important one; for I maintain, from many years' experience in the treatment of burns, that not only is the pain far more quickly relieved, but that the cure is hastened in the same proportion.

Some half a century since this principle of treatment by local stimulants was enunciated to the profession by Dr. Kentish, of Bristol. Its value was at once acknowledged by observing men; and I think I am not mistaken in asserting that the principle was adopted in the majority of the hospitals of the metropolis, if not in all. I know that it was thoroughly appreciated by my own teacher, Mr. Abernethy, who would naturally influence the opinions of a considerable proportion of the profession. The agent employed by Dr. Kentish was spirit of turpentine, which was applied, diluted or otherwise, over the affected surface. The application was accompanied by an increase of temporary pain, which, however, passed off in the course of a few hours, and thus improved the condition of the patient. The amount of pain was in relation with the extent and severity of each injury. How it has happened that we have reinstated the fomentation and carron oil system again I know not. I don't understand how a surgeon who has once adopted the application of treatment by local stimulants could abandon them for the negative principle of oils or warm water. I wish to recommend to your recollection the employment of a remedy on the same principle I have for many years resorted to both in St. Bartholomew's Hospital and elsewhere—viz., a solution of nitrate of silver in a proportionate strength to the extent and severity of the burn. I have used the solution in the strength of from five to twelve or more grains to the ounce of water. The lotion would, of course, be modified by the age of the person, five grains, or about five, sufficing for a child. If the whole surface be freely bathed with the solution, and entirely covered

up in cotton-wool, and a moderate opiate be administered in a glass of brandy-and-water in strength proportioned to the age and habits of the patient, with the object of counteracting the sense of chilliness that will otherwise necessarily follow in all these cases, I think you will find you have made a good start in the future management of your case. In all cases, whether of burn or scald of the external skin, I say, resort to local stimulants. The soft and soothing system, I believe, answers no useful purpose whatever beyond that of excluding air, if that be, as supposed, a great desideratum.

I prefer the solution of nitrate of silver to the turpentine of Dr. Kentish, because it can be made of variable strength to suit each individual case, and the relief it affords after its first application is yet more complete than that afforded by the latter remedy. The theory of the excellent results of the treatment of burns by provocatives, or remedies that provoke physical pain, is not very clear. It would appear that relief invariably follows a temporary increase of pain; but one is inclined to ask whether the benefit consists in the actual presence of pain, and how far the same agency —whether of fire, hot water, turpentine, or the nitrate-of-silver lotion—would be equally beneficial when the subject of the injury was placed under the influence of chloroform. This question I must refer to others more fortunate than I in having at their command a larger field of inquiry than now falls to my lot.

My advice to you is, to abjure carron oil and all demulcents, and to adopt the treatment of burns and scalds by local stimuli.

DIGITALIS IN DELIRIUM TREMENS:

FIVE CASES SUCCESSFULLY TREATED BY HALF-OUNCE DOSES OF THE TINCTURE; WITH REMARKS.

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THE LANCET of June 4th contains an account of a case of delirium tremens successfully treated by large doses of digitalis. The publication of that case, together with those recently published by my friend Mr. Nankivell, has induced me to recount my experience of the drug in similar instances. I may premise that four of my patients had one dose only; but that, it is right to add, consisted of half an ounce of the tincture of the London Pharmacopœia. The other patient had, first half an ounce, and then, after the lapse of some hours, two drachms.

CASE 1.—The first case treated with what may be regarded as an heroic dose was that of a woman, aged about forty, who was engaged in the kitchen of a large institution where she had ample opportunity of obtaining stimulants. When she first became delirious, a full dose of opium was given by the surgeon in attendance, and was repeated some three or four times. In spite of this, however, she became so excited that it was thought desirable to send her to the insane ward, where, shortly after her admission, two drachms of tincture of opium were administered. No improvement followed the exhibition of this large dose, and the gentleman in attendance gave up all hope of saving his patient. At my suggestion, half an ounce of tincture of digitalis was administered. I watched the effect of this, and observed that twenty minutes after its exhibition the patient fell asleep. She slept for several hours consecutively. On awaking, as she was still somewhat delirious, though much less excited, I thought it desirable to give her two drachms more of the tincture. After this no further treatment was required, and the woman quickly resumed her duties.

CASE 2.—The next case that came under my notice was that of a potman, aged thirty-five, whose symptoms for the first two days of the attack were so like those of enteric fever that it was not without some difficulty that I made a correct diagnosis. Parenthetically I may observe that, probably, had the clinical thermometer then been in use, the difficulty I experienced would not have arisen. Moderate doses of opium did no good, nor did like doses of tincture of digitalis. The patient became so much worse that I determined upon giving him half an ounce of tincture of digitalis. My notes state that "he was asleep within ten minutes of taking the dose; slept for four hours; then was awake for half an hour; and then slept again for two hours, making six in all." This was the first sleep he had had for nearly a week. He was well in a day or two.

CASE 3.—The subject of this case was a grocer aged about twenty-six, who, having inherited a considerable sum of money, was unwise enough to indulge in repeated debauches of a serious character. I learned from his wife that he had previously had at least one severe attack of delirium tremens. When I saw this patient he was in a state of high delirium and very troublesome. I need not detail the treatment adopted; suffice it to say that, in spite of opium, antimony, henbane, oxide of zinc, cannabis indica, &c., he did not improve; indeed his condition became really alarming. Half an ounce of tincture of digitalis now appeared to me to be the only remedy likely to benefit the patient, and accordingly I gave him that dose. I should here state that up to the moment of giving the tincture the pulse was rapid and of an irritable character. The heart seemed to me to beat much too often and to do but little real work; and this I believe was actually the case, for in a very few minutes after administering the drug I noticed that, whilst the pulse, which I closely watched, had fallen in frequency, it had increased considerably in volume, and this at the time to me somewhat alarming change was exactly coincident with the supervention of sleep, which occurred in less than twenty minutes after the exhibition of the remedy. This one dose cured the patient of that attack, and for some time he remained well and temperate. At last, however, he again broke out, and I attended him once more in a similar attack, which will be detailed under the heading of Case 5, as I prefer to relate the cases in the order in which they occurred.

CASE 4.—In this instance, the patient, a young gentleman aged twenty-one, who had forfeited an excellent Government appointment through drunkenness, was furiously delirous. Neither opium nor morphia had any good effect upon him, and it was only after their failure that I ventured upon giving a large dose of digitalis. In this case, as in the last, I closely watched the effect of the drug upon the pulse, and with precisely similar results: it fell in frequency, while it gained in force and volume. The patient was asleep within a quarter of an hour of taking the medicine, slept for ten hours consecutively, and on awaking felt and remained perfectly well. This patient died a year afterwards of phthisis, induced undoubtedly by drink and debauchery.

CASE 5.—This case occurred in the person of Case 3, and is peculiarly interesting on the following account:—

Dr. Russell Reynolds, whom I had acquainted with the success I had met with in the foregoing cases, suggested that possibly the good effect of the half-ounce of tincture of digitalis might be owing to the alcohol it contained, and not to the digitalis; and he recommended that, if I had an opportunity of doing so, it would be well to try the effect of half an ounce of proof spirit. Dr. Reynolds, also, suggested that, if I found it necessary to resort to digitalis, it would be desirable to give a watery infusion of the drug, using a dose of it equal in strength to half an ounce of the tincture. It so happened that, shortly after this conversation, Case 3 again came under my care, with another severe attack of delirium tremens. I felt it to be my duty to give him the benefit of ordinary treatment at the outset, as I had done in the first attack for which I attended him; but the result was equally unsatisfactory, and, ultimately, I judged it to be necessary to give him digitalis again. But before doing so I determined to put into practice Dr. Reynolds's suggestion. I accordingly gave half an ounce of proof spirit; and although for a considerable time I carefully watched the patient after its administration, I could detect no change whatever either in the pulse, respiration, or mental condition. Finding the result of this experiment to be purely negative, I resorted to the half-ounce dose of tincture of digitalis, as I found a difficulty in procuring good digitalis leaves wherewith to make a watery infusion. This, happily, acted as efficiently as a like dose had done on the first occasion; and the phenomena observed after its administration were of precisely the same character—that is to say, the pulse fell in frequency while it gained in volume

and strength, the breathing became more tranquil, and the patient fell asleep within twenty minutes of taking the drug. After some hours' sleep he awoke cured.

Remarks.—No bad or dangerous effects were observed in either of the cases narrated, although, I confess, that the marked decrease in the frequency of the pulse at first made me uneasy; and, had I not recognised that, while it fell in frequency, it gained remarkably both in force and in volume, I should have been alarmed.

It will be observed that my patients were young, or comparatively young, persons; for I am averse to treating the aged by means of large doses of digitalis, being, in truth, as it were instinctively, afraid to do so. And, even in the young, I was and still am loth to resort to so powerful, not to say dangerous, a remedy without, in the first instance, having given the patient the benefit of what is regarded as more orthodox treatment, which, undoubtedly, succeeds in the majority of cases. In endeavouring to analyse the reasons which influenced me in giving these large doses to young, or comparatively young, patients (for age should not be measured by years alone), and withholding them from others, I made out the process of reasoning to be somewhat as follows; and I venture, although with some diffidence, to mention it, because I believe it to have served me in good stead.

There is unquestionably a great disturbance of the vascular system in delirium tremens. Whether arterial tension be lessened or increased need not now be discussed: this much we may safely assume, that there is a considerable departure from the normal standard, and as long as that departure is maintained there is delirium. It is well known that digitalis exerts a very powerful influence over the heart and the whole vascular system. Its precise *modus operandi* is perhaps beside the object of this paper, but I cannot forbear remarking that probably the following explanation is very near the truth. It is admitted on all hands that digitalis retards the action of the heart, and by most observers that it materially increases the tone of that organ. Now, retardation of the heart's contractions gives more time for the auricles to unload themselves into the ventricles, and in this way venous stasis may be lessened; while, from the increased force with which the ventricles, especially the left, contract, the arterial and capillary circulation may be improved. But, whatever may be the condition of the vascular system in a given case of delirium tremens at the moment of exhibiting a large dose of digitalis, it is thereby altered. It is this sudden alteration which I think unquestionably takes place that, in my judgment, makes large doses of digitalis dangerous; for whether arterial tension be increased or diminished, the alteration is so sudden that unless the vessels be sound and elastic they cannot quickly enough accommodate themselves to the change, and hence, I believe, the danger. It is clear that those persons whose arteries have become inelastic from degeneration cannot safely bear sudden changes in the tension of their vascular system; and, *à fortiori*, those in whom this degeneration (or "rottenness," as Sir Wm. Jenner aptly expresses it) has gone on to any great extent are in the greater danger, and that for two reasons—first, because the rotten spots may give way if the tension be suddenly increased; and secondly, because the rigid arterial tubes cannot contract upon, and accommodate themselves to, the lessened volume of blood if it be suddenly diminished. This, I believe, will explain why *large* doses of digitalis are so dangerous to the aged. *Small* doses, I need hardly say, are invaluable in the treatment of the cardiac affections of old people; and it may be that their cautious use may prove beneficial in the treatment of delirium tremens occurring in persons of advanced years.

Queen Anne-street, Cavendish-square, June, 1870.

DR. WHITMORE, the medical officer of health for Marylebone, has just made his annual report, which states that there were 169 more deaths during the year than in the previous one. The causes of the increase were attributable partly to an unusual mortality from diseases of the lungs, and partly to the epidemic outbreak of scarlet fever, which towards the close of the year was exceeding fatal. The birth-rate was equal to that of the previous year. Small-pox was fatal in 4 cases; the average number of deaths for the last fourteen years was 24. Diarrhœa had destroyed 176 lives, which is below the average.

FURTHER EVIDENCE REGARDING THE EFFECTS OF THE ANTISEPTIC SYSTEM OF TREATMENT UPON THE SALUBRITY OF A SURGICAL HOSPITAL.

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IN the early part of this year a paper was published in THE LANCET,* in which I recorded the general results of my practice in the Glasgow Infirmary during three years in which the antiseptic system of treatment had been carried out, as compared with my previous experience in the same institution with ordinary management of the cases. It was there shown that the strict enforcement of the antiseptic principle had been accompanied by a most striking change in the salubrity of the wards under my care, which had been converted from some of the most unhealthy in the kingdom into models of healthiness; and I ventured, in conclusion, to make the following remark:—"Considering the circumstances of those wards, it seems hardly too much to expect that the same beneficent change which passed over them will take place in all surgical hospitals when the principle shall be similarly recognised and acted on by the profession generally." I have now the pleasure of announcing an instance of the fulfilment of this anticipation, as related in the following letter from Dr. Saxtorph, Professor of Clinical Surgery in the University of Copenhagen.

"My dear Sir,—It is now nearly a year since I left Glasgow, where I had the opportunity of seeing how the antiseptic treatment of wounds is to be carried out. Every surgeon who has seen the remarkable results of this treatment must feel it his duty to imitate you, and dress the wounds after your principles. I therefore, as soon as I came home, adopted your method, and have used it now continually since that time; and I am happy to say that, although I have not generally succeeded in obtaining complete primary union, except in smaller wounds, still the treatment has proved in other respects extremely satisfactory. The hospital to which I am appointed head surgeon (the Frederik's Hospital), is a very old building—in fact, it is now much more than a hundred years old,—and it contains about 350 medical and surgical beds. In the surgical wards I have room for about 150 patients; but the usual number during the winter has varied from 100 to 130. Formerly there used to be every year several cases of death caused by hospital diseases, especially by pyæmia; sometimes arising from the most trivial injuries. Now, I have had the satisfaction that not a single case of pyæmia has occurred since I came home last year, which result is certainly owing to the introduction of your antiseptic treatment. But it must be clear to any surgeon who has adopted your method that unless you take the greatest precautions in *every* dressing till the wound is either healed or filled up with granulations, you will never see the excellent effects of this treatment. It certainly takes much longer time, and demands much greater precautions, than any other dressing; but the reward is certain, and it is a great satisfaction to know that the good result of many operations almost entirely depends upon your dressing of the wound. As an instance of this I may mention the following case:—A man came to me with a foreign body in the left knee. I thought it to be, not a loose cartilage, but a fragment of the tibia, loosened by the kick of a horse eight years ago. It was situated behind the ligamentum patellæ, was a little movable, and grated very distinctly as two osseous surfaces would do. I made a large incision on the outer side of the capsule and tried to extract it, but the surfaces were so much entangled in each other that I was obliged to use my finger and different hooks and forceps before I got it out. The operation lasted certainly a quarter of an hour, and during the whole time I poured a stream of carbolic solution over the wound. Having extracted it at last, it proved to be really a part of the head of the tibia with its cartilaginous surface on it, and of the size of a small walnut. I treated antiseptically, and the wound closed without any suppuration in the joint. All

* THE LANCET, Jan. 1, p. 4; and Jan. 8, p. 40.

the compound fractures which I had to deal with last year, some of them very severe ones, have healed without the least suppuration in the fracture itself, and the consolidation did not take much longer time than in a simple fracture. All the amputations of this year have recovered. There has certainly been some suppuration, but it never became profuse, and I never observed any putrefaction. I feel so much indebted to you for what I have learnt in seeing you employing the antiseptic dressing, that I thought it my duty to let you know how things went on in my hospital practice; and I am happy to say that I never tried any innovation which answered so admirably as this treatment of wounds.—Believe me, my dear Sir, ever yours,

July 18th, 1870." SAXTORPH.

It may seem strange that results like these should have been obtained in Copenhagen, when so little approach to them has yet been made in the capital of England. The fact, however, is not difficult to explain. Want of success in many quarters has not arisen from any unwillingness to try a new mode of practice. On the contrary, the publication of my first papers was followed by a very general employment of the material which I happened to select for carrying out the treatment, and which, unfortunately for the principle involved, was then little known in British surgery, so that the striking results which were recorded were too often attributed to some specific virtue in the agent. The antiseptic system does not owe its efficacy to any such cause, nor can it be taught by any rule of thumb. One rule, indeed, there is of universal application—namely, this: *whatever be the antiseptic means employed* (and they may be very various), *use them so as to render impossible the existence of a living septic organism in the part concerned.* But the carrying out of this rule implies a conviction of the truth of the germ theory of putrefaction, which, unfortunately, is in this country the subject of doubts such as I confess surprise me, considering the character of the evidence which has been adduced in support of it. Yet, without this guiding principle, many parts of the treatment would be unmeaning; and the surgeon, even if he should attempt the servile imitation of a practice which he did not understand, would be constantly liable to deviate from the proper course in some apparently trivial, but essential detail, and then, ignorant of his own mistake, would attribute the bad result to imperfection of the method. For my own part, I find that, in order to approach more and more to uniform success, it is necessary to act ever more strictly in accordance with the dictates of the germ theory. Failure on the part of those who doubt or disbelieve it is therefore only what I should expect.

Another great cause of failure undoubtedly is, the careful attention necessary in order to exclude, from first to last, the subtle putrefactive organisms that people the atmosphere and form part of the dust which adheres to all exposed objects. The germ theory, while it furnishes the clue to success, affords ample explanation of failure. I believe I do my professional brethren in Britain no more than justice when I say that if they felt anything like the assurance expressed in Professor Saxtorph's words, "the reward is certain," they would not grudge a greater degree of trouble than the antiseptic treatment demands. And, in truth, when once a surgeon has become thoroughly initiated into the practice, it is in most cases a saving of trouble. Thus I have at present a patient about to leave the infirmary three weeks after the removal of the entire mamma for scirrhus, all the axillary glands having been at the same time cleared out after division of both the pectoral muscles, so as to permit the shoulder to be thrown back and the axilla freely exposed, as is done in the dissecting room—a practice which I have for some years adopted where the lymphatic glands are affected in that disease. In this case a great deal of care was certainly required for the first few days; but after a week the dressings were only changed once in three days, and when a fortnight had elapsed, cicatrisation being almost perfect, a week was allowed to pass without any interference. Hence, on the whole, the labour was considerably less than with ordinary treatment, and a very much greater amount of pains would have been amply repaid by the beautiful linear cicatrix, formed without the occurrence of one drop of pus, and without any serious constitutional disturbance. This, however, was an instance in which an unusual degree of care was requisite; for the axilla is one of the most difficult situations in the body to guard antiseptically, and I have only myself learnt quite recently the art of doing this, as I believe, with security. But in most cases the details of the treatment are not troublesome to execute by anyone accustomed to them; yet they nevertheless require at first earnest practical study until their employment has become habitual and instinctive. It is therefore not to be wondered at that surgeons endeavouring to carry out the treatment without having seen it in operation, and only half persuaded of the importance of the object to be attained, should fail time after time, and throw up the attempt in disgust. Professor Saxtorph, on the other hand, having observed the effects of the antiseptic treatment, and appreciated its importance, spent a considerable time in carefully watching it in operation, and then set to work in right good earnest to carry it out; and, as he believes in the germ theory of putrefaction, it is not surprising that sound principle and careful practice should have been crowned with the success which he has related.

I had not intended to have published anything regarding the general condition of my wards in Edinburgh till a longer period should have elapsed. But in connexion with Professor Saxtorph's letter I may state that, having now been in charge of 50 beds for nine months in the Royal Infirmary here, I have as yet had no instance of pyæmia, although many cases have been admitted in which it might, under ordinary treatment, have been apprehended, such as compound fractures, amputations in the lower limb, and extensive gouging operations upon bone. Hospital gangrene also has been entirely absent. Though several cases of ulcers of long standing have been under treatment, there has never been any appearance of greyness of the surface to indicate even the mildest form of the disease.

Two cases of superficial erysipelas occurred in December; but these seemed to me attributable to cold rather than to any poisonous condition of the atmosphere. In my former paper on this subject I mentioned a case in which erysipelas appeared in a stump after amputation of a leg, long after the patient had left the Glasgow Infirmary with the wound entirely cicatrised; and I remarked upon the interest of that case as occupying an intermediate position between traumatic and idiopathic erysipelas, implying that local irritation of such trivial nature as that of a contracting cicatrix might determine the occurrence of the complaint in a person predisposed to it constitutionally. We know also that exposure to cold is the most common exciting cause of the idiopathic form of the disease, which is entirely independent of any unhealthy state of the air. It therefore seems not unreasonable to suppose that where the local irritation of a wound coexists with a chill, traumatic erysipelatous inflammation may become developed in some persons in a perfectly pure atmosphere; and such seemed the most probable explanation of the two cases to which I am now referring. One of them was a man above the middle period of life, in whom I had performed amputation at the knee-joint. Five days after the operation, the discharge amounting to only a few minims of serum in the twenty-four hours, and the patient being free from constitutional symptoms, I thought him a favourable subject for illustrating the antiseptic dressing of a stump before the clinical class. Accordingly I had him taken into the theatre, and dressed him there; and, not thinking how time was passing, I left the stump covered only with a piece of calico soaked with cold watery solution of carbolic acid while I discussed at considerable length the mode of procedure. It happened to be one of the coldest days of that severe winter, and it afterwards occurred to me that I had been guilty of imprudence in exposing the stump so long. Next day he complained of not feeling so well, and the skin near the wound exhibited the commencement of an erysipelatous blush, which spread some distance up the trunk before it finally subsided. The other case was one of removal of the mamma for scirrhus. In changing the dressings the exposed surface of the chest was syringed with the cold watery solution of carbolic acid, and, in that very cold weather, a chill was certainly not unlikely to occur from such treatment. Here also a blush of redness appeared near the wound, and, though it was only superficial and did not spread far, it was unmistakably erysipelatous. Taking this view of the cause of the complaint in these two cases, I adopted the simple expedient of making the 1 to 40 watery solution of carbolic acid by mixing that of the strength 1 to 20 with an equal quantity of hot water, so as to make a warm lotion; and

during the seven months in which this plan has been pursued we have had no more appearance of erysipelas.

Thus my wards, although by no means models, as regards their principle of construction or the space allowed between the beds, appear perfectly free from any liability to hospital diseases.

Edinburgh, July 22nd, 1870.

ON THE

LOCAL AND SPONTANEOUS ORIGIN OF ENTERIC FEVER.*

BY CHARLES E. PRIOR, M.D.

IT is an utter impossibility that any science can advance whose fundamental axioms are a matter of uncertainty or of suspicion. No history can be appealed to with confidence, however elaborate it may appear, whose author lies under the suspicion of having refrained to consult the authorities whose views were unfavourable, or of having allowed his imagination in any minor matter to colour his representation of past occurrences. Little as they may affect the main beauties of the poet, the critical mind recurs again and again to the blots and scratches of the recently discovered folio of Shakspeare, and the authority of the entire emendations awaits confirmation until the doubts on the threshold are cleared up.

And so it is in medical researches, and very especially in those connected with that most important subject, the etiology of enteric fever. Led away by the declamation of this or that professor, gratified it may be by the deep research and protracted labours of another, it seems but a small return to accept their occasionally very crude conclusions as to the causation of the disease; by-and-by will arise uneasy doubts; there will be frequent recurrence to the awkward *crux* so glibly disposed of; and, unless we feel inclined to substitute intemperance and assertion for argument there is little left but to go over the entire ground again.

It is non-results such as these that have a painful effect on the standing of medicine as a science, and give too much point to the occasional jeers of the learned of other professions, who yet make insufficient allowance for the difficulties with which we have to contend. The naturalist as he passes along the highway hears the chirp of the linnet over-head; and if he be a true observer, or even a truthful disciple of other observers, a whole history lies before him in that one note—the flight, the plumage, the habits of the bird—nay, the very nature of the country. A plant is brought to the botanist in his study; he inquires the locality where it was found, examines its growth and strength, and a series of stable conclusions as to the soil, the climate, and the natural productions with which it may probably be found associated are at once before his mental vision. From step to step and conclusion to conclusion the astronomer and the geologist advance with assurance along the track of their absorbing pursuits. Circumstances have denied to the science of medicine conclusions so secure and progress so encouraging; but I think I do not err in saying that there is a something wanting in our method of research which may account for our comparatively meagre progress, our occasional and most mortifying drawbacks in the path of discovery. Were medical research more systematised; were certain problems submitted as a matter of business to experts, and their research rigorously confined thereto; were their results public property rigidly watched by vigilant commissions, and not mere desultory observations expanded into axioms for the sake of premature celebrity, and adhered to with the obstinacy of personal interest,—I conceive that medical science would be now in a far more advanced stage than it is.

Such a problem is the local and spontaneous generation of enteric fever—denied by many, doubted by most, assented to by others from sheer *ennui*, vigorously and enthusiastically asserted by some, accepted by a great portion of the public as an axiom and fundamental (as Cromwell would term it) of sanitary legislation.

Do we clearly understand the importance of what is conveyed by an assent to the doctrine of spontaneous generation?

In the infancy of science, Aristotle considered that insects, fishes, and mollusca were capable of spontaneous generation. Plutarch, we are informed, made an exception in favour of mice. We may smile at these absurdities, and congratulate ourselves on the progress of modern science; but it is only within the last quarter of a century that the wonderful stages of existence of most of the entozoa have been recognised in England, and the term "equivocal generation" may be found in works of authority by living authors. With the advance of investigation I am disposed to think that "equivocal generation" will recede, like the spontaneous generation of Aristotle, with those members of the animal creation of whose generation we know nothing, and whom our present methods of observation are insufficient to track. The more that improved methods of observation are brought to bear upon it, the more does spontaneous generation recede. We can already enumerate thousands of existences, both animal and vegetable, to which this origin was once assigned, whose generation has now been traced and established. Some still remain an enigma; but, judging of the future by the past, or of the unknown by the known, it is fair to say that the burthen of proof of spontaneous generation rests with its advocates. Lamarck conceived that the monad, the then lowest known form of animal life, might be produced by spontaneous generation; but Ehrenberg admits nothing of the sort. The speculations of Pliny or Aristotle, at which we now smile, are but a counterpart of the belief of the ignorant of our own days (and ignorance does not walk in hobnailed shoes alone, nor is it excluded from the halls of the wealthy or the heads that wear coronets). We are all prone to judge by appearances. I went last year to a copper mine. My guide, an intelligent foreman, was very anxious that I should see the most remarkable process of all—"iron made into copper." I assured him that this was an impossibility; that the transmutation of metals had been abandoned 200 years ago; but that, perhaps, when I saw it, I might explain what gave the appearance of its doing so. He took me to the place. "There it is, Sir; you see the iron goes and the copper comes." And certainly the ingenious chemical process employed gave every colour to his statement. I explained the matter to him as well as I could. I knew whence came the copper, and what became of the iron; but I cannot with the same ease explain whence comes the minute spore that breeds the mildew in cheese, which tranquil ignorance assumes to be generated by damp. The idle and unthinking may assume that the lichen on the wall is generated by the damp of the cellar, the mildew of wheat by the atmosphere, or the mites of cheese by decomposition; the scientific student only sees in any case of so-called equivocal generation the necessity for further research.

It has been attempted to bring the question of spontaneous generation to the test of actual experiment. Some quarter of a century ago the reading public of England was fascinated by the appearance of a work ("The Vestiges of Creation") in which the transcendentalism of Oken, Goethe, and Geoffroy St. Hilaire was first introduced to a general audience (though not its first introduction to the scientific world). From experiments therein recorded it would appear that, under certain conditions, acari of peculiar form had made their appearance in certain solutions without the presence of organic germs; but experiments of a similar character have been subsequently made by Schwann, and this with a negative result; and the edifice has been crowned, so to speak, by M. Pasteur, who has shown that the infusions employed were capable, if supplied with organic germs, of producing living infusoria in profusion. In fact, spontaneous generation, under these rigorous tests, fades away to nothing. For ages it has been but a name to disguise our ignorance; and now the question has arrived at that point that it must either be clearly demonstrated (an impossibility!) or finally abandoned.

But it may be said, What has the spontaneous generation of infusoria, of plants, or animals to do with the spontaneous generation of disease, the more especially as we know that many diseases *are* spontaneously generated? To this I would reply, Much, very much. In the first place, we thereby clear the field of a whole group of parasitical diseases. Instead of searching about for the climatic

* Read, Oct. 1869, before the S. Midland Branch of the B.M. Assoc.

causes of tænia or guinea-worm, we are disposed to feel astonished that our forefathers should have overlooked their immense powers of propagation. We have seen favus or achorion Schonleinii grown on slices of apple, or the fearful foot-fungus of India reproduced by cultivation from the germ by Mr. Berkeley; we have read the discoveries of Von Siebold; and as regards parasitical diseases our ideas of their generation are fixed and settled.

Nor is this all. We have recognised in the entire group of exanthemata certain peculiar characteristics which admit, at least, the possibility of their being a low form of fungoid nature. The proposition is a startling one; but the rapid growth of the characteristic eruption when once the germ has been received, and the immunity from second attacks, appear to point to a pabulum in the system exhausted by the first crop. I cannot enter further into this branch of the argument. I merely notice it *en passant*. The theory, I believe, has been treated at length by an American physician, Dr. Salisbury. We scout with the utmost derision the idea of a spontaneous origin of the too familiar enthetic diseases; so much so that if any professional brother is sufficiently weak to admit an accidental syphilitic inoculation (an occurrence by no means impossible), our estimate of his sagacity immediately sinks; and yet, if the following argument be valid, it is surely at least as applicable to enthetic disease as to any other. It is this: "The origin of all these diseases is unknown to us. They must have had a beginning—a first case. Why, then, may not first cases crop up now and then amongst and around us?"

This argument, pointed and sharpened by that magnificent disregard for the research and opinions of others which characterises French travellers and English authoresses, has found its way into Miss Nightingale's "Notes on Nursing." The passage is altogether so remarkable, and has exercised so remarkable an effect, that I venture to transcribe it entire.

"Is it not living," says this lady, "in a continual mistake to look upon diseases as we do now—as separate entities which *must* exist, like cats and dogs? instead of looking upon them as conditions, like a dirty and a clean condition, and quite as much under our control; or rather as the actions of kindly nature against the conditions in which we have placed ourselves.

"I was brought up, both by scientific men and ignorant women, distinctly to believe that small-pox, for instance, was a thing of which there was once a first specimen in the world, which went on propagating itself in a perpetual chain of descent, just as much as there was a first dog (or a first pair of dogs); and that small-pox would not begin itself any more than a new dog would begin without there having been a parent dog.

"Since then I have seen with my eyes, and smelt with my nose, small-pox growing up in first specimens, either in close rooms or in overcrowded wards, where it could not by any possibility have been 'caught,' but must have begun. Nay, more; I have seen diseases begin, grow up, and pass into one another. Now dogs do not pass into cats. I have seen, for instance, with a little overcrowding, continued fever grow up; and with a little more, typhoid fever; and with a little more, typhus; and all in the same ward or hut.

"Would it not be far better, truer, and more practical, if we looked upon disease in this light? For diseases, as all experience shows, are adjectives, and not substantives."*

We may fairly hold our breath at the startling prodigality of assertion in this remarkable passage. Diseases adjectives! I fear too many of us have a distinct personal experience of their substantive nature. Continued fever from a little overcrowding, a little more typhoid, a little more typhus! What will Dr. Murchison say to such general pathology as this? Small-pox springing up in first specimens *teste* the infallible eyes, *teste*, moreover, the infallible nose! And yet this passage has taken no trivial hold of the public mind, and has been currently appealed to whenever the origin of exanthematous disease from "dirt"—whatever that may mean—or from "overcrowding"—wherever that may be supposed to begin—has been called in question. Many a tyro has been visited with a triumphant knock-down from Miss Nightingale when enunciating the old-fashioned doctrine of infection, and remitted to another six months' course of whitewash, ventilation, painted walls, and patent waterclosets. If occasionally we ourselves have felt a little humiliation when our science has been set at nought, our conclusions doubted, I cannot say that the circumstance is altogether to be regretted, should it induce us once for all to abandon our vacillating theories, to throw in our little observations honestly and faithfully for the general benefit, and to seek the reward of our labours in establishing science on a firm basis, not in an evanescent and fruitless popularity.

To such speculations as those of Miss Nightingale and her adherents the answer is not far to seek. Never, I will venture to say, since small-pox was first introduced into Europe has a sporadic case occurred. To trace the germ with eyes or nose, as this good lady would appear to think possible, would be a task like that of tracing the gnats of summer to their home, or the spore of the sea-fern to its native land. Small-pox has come to the prisoner in solitary confinement and to the prince upon the throne. A letter has carried it, the wind has wafted it in directions that have baffled the investigation of man; but there are limits which it cannot overpass. From the beginning of the world the North American Indians had remained exempt from this disease (and the circumstance appears to me one argument against Cuvier's theory of their Mongolian origin) till one fatal day, a few years after the discovery of Hispaniola, a negro covered with pustules was landed on the American shore, and from him the disease spread over the entire continent before it could be grappled with. No history can convey the desolation it has effected. Mighty nations have dwindled before it to feeble tribes; whole tribes have ceased to exist.

To this day the Maories of New Zealand are exempt from the disease, though, as far as local causes go, perhaps they are as frequent and as disgusting amongst them as with most savages. Let it once be introduced there, and probably the experience of America will recur. But the physician who is called to a case of small-pox knows that in the great majority of cases it will be useless to attempt to trace the infection; he recognises the fact, and addresses himself to practical matters; and if this be true of the most marked and typical of the exanthemata, it will be additionally true of others whose infection is more feeble, and whose characteristics are less distinct.

(To be concluded.)

* Notes on Nursing, p. 10.

CASE OF

SLOUGHING PHAGEDÆNA OF THROAT, HÆMORRHAGE, AND LIGATURE OF COMMON CAROTID.

UNDER THE CARE OF

ROBERT GRAHAME, ESQ.,

STAFF-SURG. R.N., GREENWICH HOSPITAL.

(*Reported by* Assist.-Surg. P. KEELAN, R.N., *and communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

JOHN F——, aged forty-three, an out-pensioner, was admitted into Greenwich Hospital on the 12th of April, 1869, suffering from advanced phthisis, accompanied by occasional hæmoptysis. A month after his admission ulceration of the back of the pharynx commenced, and, in spite of all topical and constitutional treatment, speedily extended on either side, implicating both tonsils, and eroding the whole of the uvula and greater part of the soft palate. For some time the process of ulceration appeared to have come to a standstill, but on the 16th of October last a large ragged slough was found situated behind the right anterior pillar of the fauces, and extending down into the pharynx. The sloughing action progressed, and slight hæmorrhage by the nose and mouth first appeared on the 4th of December. This recurred more profusely on the next day (5th); and, as the blood *appeared* to be derived from the posterior nares, these were plugged. The bleeding ceased for the time; but on December 7th, half an hour after midnight, during a fit of coughing, profuse arterial hæmorrhage suddenly took place, coming from the right side of the throat, and also trickling from the right ear, in which hearing had been for some time lost. Pressure

was applied promptly to the trunk of the common carotid artery, with the effect of checking the hæmorrhage; and a consultation was held between Staff-Surgeon Grahame and Assistant-Surgeons Inman and Keelan, when it was determined to tie the right common carotid (the pressure upon which had never been relaxed). This was accordingly done by Dr. Grahame just above the omo-hyoid, the wound in the neck being brought together by three points of interrupted wire suture. The hæmorrhage was completely arrested. The amount of blood lost immediately before the operation was between thirty and forty ounces. The patient bore it well, and his pulse (which had almost disappeared at the wrist) became more full and regular (120). Noon: Slept quietly since the operation.—7 P.M.: Coughed up a little dark-coloured clotted blood, apparently derived from diseased lungs. A knob of ice to be placed occasionally in the mouth; draught of hydrochlorate of morphia at bedtime; the diet to consist of fowl, beef-tea, milk, and two eggs.

Dec. 8th.—Had a good night, and has just woke up much refreshed. Pulse 120, regular, more firm than yesterday. Repeat the draught.

9th.—A good deal of gnawing pain in the right side of the head. Pulse 104, full and firm; face cheerful; appetite good; bowels opened freely this evening. To continue the draught.

11th.—10 A.M.: Has just woke up from a sound sleep. Some discharge of pus from the lower part of the wound in the neck; sutures removed, and water-dressing applied; both jugulars pulsating. Stethoscope reveals the presence of tricuspid regurgitation. Repeat the draught.

12th.—Slight hæmoptysis (about half an ounce) of dark clotted blood coughed up. The right ear full of thick, yellow, healthy-looking pus. To continue the draught.

13th.—Sleeps well. Edges of the wound in the neck uniting kindly. Pulse 92; tongue clean; bowels opened freely by enema. To have fish instead of fowl. Repeat the draught.

15th.—Going on well; pulse 96; eats his food with relish; strength evidently improving. Night draught discontinued.

18th.—Slept well (without draught); is tired of his fish. To have mutton chop instead.

20th.—Ligature looks longer; patient doing well in every way; pulse 96.

23rd.—Going on in every way satisfactorily.

26th.—There is a whitish slough on the anterior surface of a polypoid excrescence, which appears to do duty for uvula and velum pendulum.

29th.—Ligature found lying loose in wound; removed it; wound in neck nearly healed. The patient is very comfortable, and has gained much strength.

The satisfactory progress, so far, of this case is peculiarly gratifying when the many circumstances tending to militate against its success are taken into consideration—viz., first, the originally cachectic condition of the patient; second, the necessity for continual digital pressure on the trunk of the vessel, thus diminishing the space for operative measures; third, the unavoidable period of operation (by candle-light); and, fourth, the prostrated condition of the patient from loss of blood.

A CASE OF

INDUCTION OF PREMATURE LABOUR BY MEANS OF THE UTERINE DOUCHE.

BY MARK LONG, M.D.,
SURGEON TO OUT-PATIENTS AT THE POPLAR HOSPITAL.

THE following case of induction of premature labour by means of the uterine douche may perhaps be worth publishing, in connexion with that recorded by Dr. Poole in THE LANCET of the 18th June last, in which Dr. Barnes's bags were used.

The subject of the operation, Mrs. H——, at the present time aged thirty years, was delivered by me, in Nov. 1868, of her first child by craniotomy, after having endeavoured unsuccessfully, and after employing all allowable force, to effect delivery by the long forceps. The contraction of the pelvis which rendered the performance of craniotomy necessary was at the brim, and was due to the approximation of the horizontal rami of the pubes behind the symphysis, by which the antero-posterior diameter was diminished, but to so slight a degree that I had considerable hope that the labour would be terminated by the aid of the forceps; in this, however, I was disappointed, as the forceps, although applied for more than an hour, did not advance the position of the head, and perforation had therefore to be resorted to. As the child was not a very large one, I advised my patient, before I ceased attendance upon her, to have labour brought on artificially at the seventh month, should she ever again become pregnant.

She accordingly consulted me when she was about six months advanced in pregnancy; and on the 14th June, at 3 P.M., a fortnight more than seven months after she last menstruated, I passed an elastic tube about three or four inches within the os uteri, external to the membranes, and injected about a pint of warm water in a gentle stream, from which the patient did not experience the least pain or uneasiness. No pains came on that day, but she felt some "bearing-down" sensations, which continued also the following day. At 3 A.M. on the 16th June I was called, and found strong expulsive pains recurring every three or four minutes. On examination per vaginam, I found the os completely dilated, with the head presenting, and the membranes, which were very tough, low in the vagina. I therefore ruptured them, and the pains increased in rapidity and strength for about an hour without causing any advance in the position of the head, so that I began to think I should have to apply the forceps; but just then some progress was made, and the labour was terminated in about half an hour by the birth of a living female child, the placenta coming away in the usual manner. Since then the mother has made an uninterruptedly good recovery, and the child is doing well.

This is one of those cases in which the contraction of the pelvis is just sufficient to make it necessary to resort to the fatal perforation of the child's head if it be of or above the average size, and in which the induction of labour before the full time is of such great advantage, and usually followed by such satisfactory results; for it enables a woman, who otherwise, as in this case, would be debarred from ever having a living child, and would be exposed to all the suffering and danger attending the operation of craniotomy whenever she became pregnant, to bear a family with only the usual amount of pain, and with little if any additional risk.

The ease with which the uterine douche can be applied, and the efficacy with which it acted in this case, will form strong inducements to my repeating its use, should I again have occasion to induce premature labour.

Barking-road, Essex, August, 1870.

TWO CASES OF STRANGULATED HERNIA REDUCED BY THE APPLICATION OF COLD WATER.

BY PHILIP FOSTER, M.D.

THE complete success of the very simple treatment employed in the two following cases induces me to forward a report of them for publication. Although cold has been long employed in the reduction of strangulated hernia, still the application of it in this form is, as far as I am aware at least, a novelty, and possesses the great recommendations of extreme simplicity, and the means of carrying it out being always at hand.

In the first case (Mr. W——) the hernia, a large oblique inguinal one, had been strangulated for sixteen hours, was extremely painful and tender to the touch, and attended with great nausea and vomiting.

In the second case (Mr. S——) the hernia, a small *femoral* one, had been strangulated for about ten hours, was but slightly painful, and unattended with nausea or vomiting.

In both cases the patients were advanced in life (about sixty), and the hernia had existed in a reducible form for several years. After trying the taxis patiently for about half an hour in each case without producing the slightest effect, I applied cold water. In Mr. W——'s case the tumour disappeared in about ten minutes under the influence of the

cold water alone; in Mr. S——'s case, after about the same length of time, the reduction was effected almost immediately upon removing the cold water cloth and reapplying the taxis. The patients were placed in the position usually recommended, and the cold water was applied by means of a pocket-handkerchief, the application being renewed every two or three minutes.

One word as to the *rationale* of this treatment. I believe that the cold water does not act simply by diminishing the contents of the sac, but that it has also a stimulating effect upon the muscular coat of the intestine, causing movement in it, and thus promoting reduction. And in this respect I think it not improbable that cold water may be preferable to ice, the latter having a depressing rather than a stimulating effect, especially where the vital tone of the intestine has been lowered by long strangulation.

Leeds, August, 1870.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASE OF NEPHROTOMY.

(Under the care of Dr. MOXON and Mr. BRYANT.)

IN the "Mirror" of July 2nd we have already referred to this case, and we now proceed to relate its further history, with an account of the post-mortem examination.

On admission the man presented some sub-conjunctival œdema, and some fulness of the left loin; and on examination his urine was found to contain pus unmixed with mucus. Mr. Bryant performed the operation of nephrotomy on the 27th of June last. No calculus was discovered, but a few ounces of pus were evacuated through the wound. The following particulars are gathered from elaborate notes by Mr. Gillingham:—

On the following day, fourteen ounces of urine, in which a few pus-cells were detected under the microscope, were passed by the natural passage. On the second day after the operation twenty-four ounces were passed, in which a few pus-cells were again detected, and the dressings of the wound were free from any urinary smell; the abdomen was a little tender and slightly tympanitic. On the third day the patient passed forty-four ounces of urine, free from both pus and albumen; the abdomen was still slightly tender, but the general health seemed good; and, the wound looking healthy, the sutures were removed. During the two following days there was neither abdominal tenderness nor any other unfavourable symptoms. But on the sixth the tenderness returned. On the night of the eighth turpentine stupes were applied to the abdomen. On the ninth fluctuation was detected at the lower portion of the abdomen. On the tenth day the patient suffered from the distension of the abdomen and bilious vomiting, but was relieved by the renewed application of turpentine stupes and the administration of opium; the bowels were freely open. The symptoms then abated for a time; but on the twenty-fourth day the patient was again taken with bilious vomiting and increased abdominal tenderness and distension, the skin became cold and clammy and covered with perspiration, coffee-ground vomiting continued during the night, and death ensued at one o'clock on the following morning.

Ever since the operation the patient had been free from pain in the loins; and the discharge from the wound, carefully examined by Dr. Stevenson, had revealed no urinary constituents.

At the post-mortem examination both pleuræ were found to be adherent inferiorly; on the left side the pleura was also adherent to the diaphragm, and the diaphragm, by means of adventitious fibrous tissue, to the kidney. The lower portion of the left lung was the seat of chronic pneumonia, and its tissue was so wasted that the great vessels approached close to the surface, while the relics of lung-tissue which surrounded them were pervaded by fibrous bundles. The heart was healthy, but the pericardium contained about five ounces of subinflammatory effusion. The peritoneum was everywhere thickened by chronic inflammation, and was also universally in a state of acute inflammation; it contained a large quantity of opalescent fluid, with flakes and shreds of lymph. The great vessels and tissues in front of the spine were thickened into a dense resisting œdematous and white fibrous mass, by which also the pancreas, duodenum, spleen, descending colon and left kidney were rigidly fixed. Some such condition, involving sympathetic centres, had been suspected, on account of an amount of tympanites disproportionate with the other symptoms. The liver, also, was adherent to its bed, and, by means of a thickened gall-bladder, to the transverse colon. The hepatic tissue was coarse, but otherwise healthy. The spleen and supra-renal capsules were healthy. The right kidney weighed nine ounces and a half, and though its elementary structure seemed coarse, it was otherwise perfectly healthy. So also was the corresponding ureter, and the bladder as well, with the exception of two small ulcers situated near the thickened orifice of the left ureter, which was thickened and ulcerated throughout. Its channel was completely interrupted by a tubercular swelling of its coats, an inch below the pelvis of the kidney. The renal pelvis was not much enlarged, but thickened and eroded by shallow ulcers. The calyces were increased by the disappearance of the pyramids and by ulcerations in their site. Thus were formed large cups lined with pyogenic membrane, forming cavities in lumps of caseous matter of about the size of a plum, corresponding to the original fœtal lobules. The whole cavity so formed would have contained from six to seven ounces of pus. Mr. Bryant's incision had entered the back of the pelvis of the kidney; but the passage had nearly closed towards the surface of the wound, which was in a healing state.

The examination showed that no harm had been done to the patient by the operation, which very much relieved his sufferings; and, further, that the left kidney could have been removed. The right kidney and the bladder were healthy, and quite in a state to carry on the functions of the urinary system.

WESTMINSTER HOSPITAL.

CASE OF MALIGNANT DISEASE OF LEFT SUPERIOR MAXILLA; SUCCESSIVE OPERATIONS, WITH IMPROVEMENT; DEATH EVENTUALLY FROM ERYSIPELAS.

(Under the care of Mr. COWELL.)

THE following account is derived from the notes of Mr. Richard Davy, surgical registrar:—

T. C——, aged fifty-two, a labourer, was admitted on the 22nd of March, 1870. He had presented himself in the out-patient room about two months previously with two prominent symptoms. 1. Pain in the left upper jaw, from which he had suffered for nearly two months, and on account of which two molar teeth had been extracted without relief. 2. Obstruction of both nostrils. There was no enlargement about the cheek or jaw. Mr. Cowell removed some gelatinous polypi from the nose on both sides. Some smart hæmorrhage followed, and some relief to the right nostril, but none to the left. A fortnight later some more mucous polypi were removed, but without any better result. After another two weeks the pain was found to be increasing, and a little fulness was visible in the hard palate on the left side, but still no increase of size in the cheek. This fulness rapidly increased, involving the whole left side of the hard palate, a small portion of the soft palate, and the alveolar processes where the teeth had been removed, and projected downwards into the mouth, as a smooth, firm, globular swelling, through which the two ragged openings of the two teeth appeared. In this condition he was admitted. There was some puffiness of the cheek and lower lid; but no enlargement of the antrum, nor even of the upper part of the superior maxilla. His speech was thickened and

nasal in tone; deglutition was perfect, but mastication was at first difficult, and, since his admission into the hospital, impossible. He could only take sopped food.

March 29.—The incisions adopted were through the middle line of the lip, along the side of the nostril and across the cheek, beneath the lower lid, and the flaps turned outwards. Mr. Cowell said that he preferred this plan (Dieffenbach's) in the cases where it will give sufficient room, to making the incision from the angle of the mouth to the zygoma, because the hæmorrhage is generally less, and the risk of deformity is avoided. When the jaw had been removed the antrum was found to be completely filled with what seemed to be a gliomatous growth, and which was firmly adherent to the bones forming the floor of the orbit. The soft parts were, therefore, carefully dissected upwards, and the malar bone and floor of the orbit were entirely removed. The greater part of the soft palate was also taken away. The bleeding was less than is usual in these cases. A solution of chloride of zinc was applied to the surface of the cavity; the space was then filled with lint, and the flap readjusted with silver-wire sutures. No external dressing was applied.

The growth was large, and, starting apparently from the superior maxilla, had become firmly adherent to the bones with which it had come in contact, and filled every cavity. Microscopically, the growth was found to be fibro-cellular; the nucleus multiple; cell-wall varying, but mostly large and oval.

The external wounds rapidly healed; and the cavity in the mouth slimed over with moist and dried mucus. Pain was gone; and the patient was cheerful, swallowed his food without difficulty, and did exceedingly well. There was no deformity except a slight flattening of the cheek.

A month afterwards a growth was found to be growing from the anterior edge of the remaining portion of the soft palate. On April 30th the growth had attained the size of a walnut, and was removed by Mr. Cowell, under chloroform. Smart hæmorrhage followed; chloride-of-zinc paste was applied, and he had iced water to drink. The growth was microscopically of the same character.

The patient did well, and went out for several drives. On May 17th, however, he was attacked with erysipelas in the head, and he gradually sank from diarrhœa and exhaustion, and died May 25th. No autopsy was permitted.

Provincial Hospital Reports.

ROYAL BERKSHIRE HOSPITAL, READING.

TWO CASES OF TETANUS TREATED WITH CALABAR BEAN, THE HYDRATE OF CHLORAL, AND CHLOROFORM: ONE DEATH; ONE RECOVERY.

In the first of these cases (abridged from notes by Mr. Wm. Royds, house-surgeon) the accidental occurrence of hæmorrhage renders the case incomplete so far as regards the therapeutic value of the remedies employed. The second is interesting from the manifest comfort (to say the least) which resulted from the use of the chloral hydrate.

CASE 1.—J. W——, aged twenty-five, was admitted on Jan. 15th, 1870, under the care of Mr. Moxhay, having a few hours previously sustained a severe injury to the right hand and forearm. Ten days after admission he complained of sore-throat and had difficulty in putting out his tongue, and the following day trismus was well marked. He was ordered one-sixth of a grain of the extract of Calabar bean every hour, which was increased after a few hours to one-third of a grain every half-hour, but without effect. On the fourth day of the tetanic symptoms one-fourth of a grain of the extract was injected hypodermically, without result. On the same morning he took thirty grains of the chloral hydrate, which produced five hours' sleep. On waking, the spasms were less violent, and he seemed altogether better. The dose was repeated in the evening, again producing some hours' sleep. The chloral was continued, in the dose of thirty or forty grains, twice a day for the next three days, always with relief to the spasms, and followed by sleep. In the evening of the seventh day, however, when he had been for some hours very little disturbed by spasm, he died from hæmorrhage from a vein which had been laid open by sloughing.

CASE 2.—A boy, aged thirteen, was admitted on March 11th, under the care of Mr. May, with tetanus, which had followed an injury of the fingers three weeks previously. On the evening of his admission he took a dose of fifteen grains of chloral, which was followed by sleep, during which he still had spasms recurring every few minutes, but scarcely rousing him. For two days he took three grains of the powdered Calabar bean every three hours, the spasms continuing with marked severity. On the fifth day he had a violent spasm, in which he became quite livid, with eyes fixed and staring, and respiration nearly stopped. Artificial respiration was employed with advantage, and he then took with difficulty thirty grains of chloral, which sent him to sleep, slight spasms occurring during the night.

Next day he began taking the extract of Calabar bean in one-grain doses every half-hour. After four doses he was alarmingly faint, but the spasms were not checked. Chloroform was then given, and he got some sleep. Twenty grains of chloral hydrate were then injected into the bowel, with the effect of sending him to sleep. This form of application was afterwards employed once, and sometimes twice daily, and always with the effect of relieving spasm and giving rest.

His attack was lengthy and severe, the spasms more than once threatening death by suffocation. The aid of chloroform was employed thirteen times, with the effect of relaxing spasm.

On April 19th (the thirty-ninth day) it is noted that he has scarcely any spasms during the day. He still continues the enema of chloral.

On May 15th he had so far improved that he was permitted to get up, and on the 28th he was discharged.

WORCESTER GENERAL INFIRMARY.

CASE OF IDIOPATHIC TETANUS; RECOVERY.

(Under the care of Dr. WILLIAMS.)

THE following case has been reported by Mr. C. Hardyman, house-surgeon:—

Edward W——, aged eight, admitted May 11th, 1870. Was quite well till three days ago, when, as he was returning from work (farm work), he suddenly fell down and became unconscious for about five minutes, and was then able to get up and walk home, not feeling any pain. Went to work the next morning, and on returning in the evening again fell down unconscious. Was able after a time to walk home and went to bed, and was attacked with violent pains and cramp in the legs and abdomen. Early next morning he was unable to walk, and he got rapidly worse all that day, and was admitted next morning.

May 11th.—There is now partial trismus. The abdominal muscles are quite rigid, as also are the lower extremities. The upper extremities and muscles of the chest are quite free. Has spasmodic contractions every few minutes, commencing in the legs, and travelling upwards to the trunk, and screams with the pain in the region of the diaphragm. Can swallow fluids without pain or spasm. Bowels constipated; retention of urine requiring the catheter. Has priapism. Ordered five grains of calomel and castor oil.

12th.—Passed a bad night, screaming out every few minutes with pain in the abdomen. Countenance pinched; pulse 100; bowels not acted; has passed a little urine at times. Ordered a common enema, which brought away a small quantity of black, offensive fæces. To take a sixth of a grain of acetate of morphia, and a purge.

13th.—Passed a quantity of black-looking fæces this morning, and seems better. The nurse says he moved his legs in the night, but they are perfectly rigid this morning, and he has opisthotonos at times. Still partial trismus; spasms not so frequent. Repeat purge.

14th.—Had a better night, and can move his legs a little this morning; but abdomen is still very tense, the recti contracting on being touched. Passed more dark feculent matter. Ten minims of tincture of belladonna every four hours; repeat purge.

He improved daily, and on May 20th he was able to get up.

The contractions of the calf muscles caused him to stand

on his toes; but he had no pain. The abdomen was then not so tense, but he still had the contractions at times. These, however, gradually passed off, and he left the infirmary quite well on June 11th.

HUDDERSFIELD INFIRMARY.

CASE OF STERCORACEOUS VOMITING AFTER OPERATION FOR STRANGULATED INGUINAL HERNIA.

(Under the care of Mr. KNAGGS.)

WE are indebted to Mr. William Robert Smith, assistant house-surgeon, for notes of the following case:—

G. K——, aged forty-five years, was admitted on the evening of May 5th, with an irreducible inguinal hernia, which had been down for about six hours. There was no vomiting nor pain, and the bowels had acted since the gut had descended. The taxis having been employed unsuccessfully, hot fomentations were applied, and opium given.

May 6th.—Has slept well, but has vomited twice matter of a stercoraceous character; skin rather dry; pulse of fair volume, 84; tongue slightly furred. During the night, as was afterwards learnt, he made frequent but ineffectual attempts to return the rupture. He was then placed fully under chloroform, careful taxis again tried, and this failing, the operation was performed in the usual manner. A small quantity of serum escaped on opening the sac, and the intestine was found much congested. Some difficulty was experienced in returning the bowel, in consequence partly of its size, but also from there being a double constriction.

7th.—Fæcal vomiting twice since operation. Slept well; pulse 96; no abdominal tenderness.

8th.—Complains of pain in chest, and cough; breathing difficult, with rusty expectoration. In other respects much the same. No vomiting during last twenty-four hours.

10th. — The patient progressed favourably until this morning, when the fæcal vomiting recurred. The wound was in a healthy state, and no appearance of any descent of intestine. An enema of water-gruel brought away but little feculent matter. The abdomen not distended nor tympanitic; pulse 96; tongue covered with dirty-white fur. Up to this time opium has been administered daily since the operation.

11th.—Passed a very good night. Pulse 96; tongue covered with dry brown fur; abdomen distended, but not decidedly tympanitic. At 2 P.M. rigors; anxious countenance; stercoraceous vomiting; pulse 100.

12th.—Vomiting continues; abdomen distended, tympanitic, and tender to touch. Pulse small, 110; tongue dry and brown. No evacuation from the bowels up to this time, though several doses of calomel and enemas have been given since the 10th. A consultation of the medical officers was called, when it was decided to propose to the patient and his friends (after fairly stating the uncertainty as to any good resulting from the operation) that the returned intestine should be cut down upon and examined, so that if any internal strangulation existed, as seemed probable, it might be relieved. The man himself consented, but his wife objected; and therefore, having regard to the many elements of uncertainty presented by the case, the idea of operation was abandoned.

13th.—The patient continued gradually sinking, and died about 12 A.M.

Autopsy, two hours after death.—On opening the abdomen there was general peritonitis, and a quantity of serum escaped from the peritoneal cavity. In the left iliac region extensive adhesions were found, binding the intestines firmly down; and these adhesions existed around the previously strangulated intestine. On slitting up this, a quantity of thin fæcal fluid escaped. The mucous membrane was congested and softened. On its peritoneal surface several spots of deep congestion were observed, but no gangrene, nor was there any direct mechanical obstruction to the passage of the contents of the bowel.

There are few cases more anxious to the practical surgeon than those where feculent vomiting recurs repeatedly after the operation for strangulated hernia. In this case it would probably have been more frequent from the first, had not care been taken to avoid putting much food upon the stomach, and also to keep the patient to some extent under the influence of opium. What was the condition upon which the vomiting depended? Clearly not upon inflammation alone, because it occurred too soon after the operation. The symptoms did not point to gangrene, unless it might be during the last twenty-four hours of life. The most obvious inference was that it must depend either upon a paralysed bowel, unable to propel its contents, or upon some mechanical obstacle within the abdomen. The supervention of inflammation was merely an addition to the symptom, not the originating cause of it. From the examination after death it is clear that paralysis of the protruded bowel, no doubt the result of too much taxis, was the first cause of the vomiting, and of the reversed peristaltic action of the intestines. But during life it was not equally clear, and the case is brought forward to show how difficult it is to distinguish between reversed peristaltic action as the result of paralysis of intestine, and that dependent upon more direct mechanical occlusion of the bowel.

Reviews and Notices of Books.

The Agricultural Labourer: A short Summary of his position, partly based on the Report of Her Majesty's Commissioners appointed to inquire into the Employment of Women and Children in Agriculture; and republished in part from the *Pall Mall Gazette* and the *Cornhill Magazine*. By T. E. KEBBEL, Barrister at Law, of the Inner Temple, Esq. London: Chapman and Hall.

MR. KEBBEL'S high reputation as a thoughtful and candid expositor of Conservative principles in Church and State will be enhanced by this well-informed, well-considered, and well-written little work on the condition of the agricultural labourer. The subject, as everyone knows, has been examined by a Royal Commission, whose bulky reports, while they attest its gravity, are apt to repel all but the specially interested reader. Between the Commissioners and the educated public Mr. Kebbel plays the part of interpreter, explaining the importance of the problem, the difficulties besetting it, and the mode in which it may be most satisfactorily solved. His volume, indeed, is a very favourable specimen of a too scantily represented class of literature—a class holding a middle place between Commissions of Inquiry and the non-official community. Few men who have for the first time to master an exhaustive blue-book can fail to appreciate the value of a careful digest of its contents by a writer who is himself an authority; and medical readers will understand the nature of Mr. Kebbel's work when we say that it performs for the reports of the Commissioners on the agricultural labourer the part so well played by Mr. John Simon for the medical reports of the Privy Council.

We have entered so fully from time to time into the blue-books of the Agricultural Commission as to absolve us from a detailed criticism of Mr. Kebbel's digest. He has overlooked no significant fact in the evidence before him; while the judgment with which he has weighed and applied it is always sound, and often acute. The chapter on Hiring is a good specimen of the tenor of the work. After a very full and impartial statement of the arguments for and against the system of yearly hiring, Mr. Kebbel inclines to regard it as, on the whole, the least objectionable of the numerous systems which have either been tried, or proposed, as substitutes for it. One consideration which he advances strikes us as at once novel and just. "We must remember," he says, "that this system of yearly hiring tends to circulate the population, and to infuse new blood into rural communities. The carter or ploughman who takes a place at some distance from his native village chooses a wife among the strangers, and settles down there perhaps for the rest of his life. At all events he has done better, physiologically, than if he had remained at home

and married a relation." (p. 111.) This is, doubtless, an advantage compensating for the evils of a "vagrant population." Breeding in and in is a condition well worth some sacrifices to prevent.

On the subject of cottages Mr. Kebbel makes some sensible remarks which show him to have extended his inquiries beyond the reports of the Agricultural Commissioners, and to have studied carefully the elaborate paper of Dr. Hunter on the Accommodation of the Rural Poor. To these as to other observations we shall, ere long, revert. Meanwhile we commend his little work as a most valuable auxiliary to the Poor-law legislator, and to the sanitary reformer.

A Practical Guide to the Study of the Diseases of the Eye: their Medical and Surgical Treatment. By HENRY W. WILLIAMS, A.M., M.D., Ophthalmic Surgeon to the City Hospital, Boston, &c. Third Edition. Small 8vo; pp. 422. London: Trübner and Co. 1869.

Handbook of the Diseases of the Eye: their Pathology and Treatment. By A. SALOMONS, M.D. Small 8vo; pp. 122. Trübner and Co. 1870.

THE attention of the medical profession in America, no less than in England, has for some time past been called to the growth of ophthalmology, and to its claims to rise into almost a department of the healing art. In England we have reached the stage of big books upon the subject; and can boast of treatises that almost exhaust the refinements of this branch of surgery. In America our brethren are still in the stage which was represented in this country by the "Handy Book" of Messrs. Laurence and Moon, and in which small treatises—pilot balloons, so to speak—are needed, in order to call attention to the demand that ought to exist for large ones. We have no great faith in these small treatises, which necessarily fail to convey information about many details on which successful treatment must depend, and which are apt to present but a skeleton of principles. But we are bound to say that Dr. Williams has produced one of the best examples of this class of work, and that the little book of Dr. Salomons appears to be correct as far as it goes, which is but a short way. The purchaser of either may depend upon not being misled; but it is by no means equally sure that he will find sufficient information for his guidance in an emergency.

Researches on Diamagnetism and Magne-crystallic Action, including the Question of Diamagnetic Polarity. By JOHN TYNDALL, LL.D., F.R.S. 8vo, pp. 361. London: Longmans. 1870.

IN this handsome volume Professor Tyndall has given to the world a revised version of the several papers in which his researches into the phenomena and nature of diamagnetic action were communicated to the *Philosophical Magazine* and the Royal Society. By these researches he cleared up the doubts which Faraday had felt with regard to the diamagnetic force; and proved that the different movements displayed by different substances, when suspended between the poles of a magnet, were due to that reversed polarity which Faraday had suggested as an explanation of them, and had afterwards abandoned as untenable. With reference to the immediate object of research, the work will commend itself to a few students only; but it should be generally read by educated people, as an illustration of what investigation and experiment in physical science mean. The doctor who founds a hypothesis of morbid action upon the issue of half-a-dozen cases, the poet who is convinced of mediumship by the events of a spiritualist tea-party, and the Philistine who says that his crude conception "stands to reason," might all lay down the record of Professor Tyndall's labours as sadder and wiser men. We trust they will all read it, and that they may all profit by the perusal.

An Elementary Course of Botany. By Professor ARTHUR HENFREY, F.R.S., &c. Second Edition, revised and in part rewritten by MAXWELL T. MASTERS, M.D., F.R.S. London: Van Voorst. 1870.

THIS excellent manual, in its revised form, will be welcome to students as embodying the most recent discoveries in botanical science. A large amount of new matter and some additional illustrations bear witness to the careful supervision of Dr. Masters, with whom it has evidently been a labour of love to carry on the design of the lamented author of the work, which was to "produce a good working text-book for the student, from which may be obtained a groundwork of knowledge in all branches of the science, without the attention being diverted from the more striking features of the subject by details comparatively unimportant." The matter is conveniently arranged for reference, the volume is a handy one as to size, and there is a good index—three commendable features in any book, but especially so in one intended for the use of students.

THE ROCHDALE SYSTEM OF CONSERVANCY.

THE vital question of what shall be done with the refuse of large towns is so surrounded with difficulties that any new method which is in practical operation on a considerable scale is deserving of the most careful consideration. On the occasion of our Commissioner's visit to the Rochdale Workhouse, his attention was drawn to a new system of conservancy, which has now been in operation many months, and is extending every day. It is described somewhat erroneously in the last Report of the Pollution of Rivers Commission as Goux's system, from which, however, it differs in all essential points.

The town of Rochdale, like most of the large towns in Lancashire, has but few water-closets. The houses are usually provided with an open privy, connected with a midden, into which are thrown ashes and other refuse. It is unnecessary to describe the defects of this system; suffice it to say that 744 of these privies, supplying the wants of over 2000 houses, have been altered to the new plan, at an average cost to the occupiers, or proprietors, of about £3 each. The privy and ashpits having been properly filled up, a good-sized tub is placed underneath each privy seat, and a second tub, of somewhat larger size, is placed in a convenient situation to receive the ashes and other house refuse. The town is divided into districts, which are visited with sufficient frequency to ensure the removal of the tubs before any important chemical changes have ensued. After each operation the tubs are cleansed and disinfected, and some fine ashes are placed at the bottom of each. The tubs are provided with covers, and are removed to the manufactory of manure in a covered van.

The ashes are transferred to a sifting machine worked by steam. This separates (1) rags, paper, bricks, iron, fish-bones, and other large articles; (2) coarse cinders, which are burned in the furnace of the steam-engine boiler, with the addition of some ordinary coal; (3) finer cinders, which are burned with the paper, vegetable refuse, fish-bones, &c., in a stove which heats an extensive drying floor, upon which (4) the finest ashes are thoroughly deprived of moisture. This fine ash is then conveyed to a tank, into which the urine and excreta from the other tubs are thrown. The whole is then thoroughly mixed together, and has the consistence of thick mud, which is then removed to a covered shed, and treated with certain chemicals, about which some mystery is made, but the cost of which is extremely moderate, as the accounts will show.

The effect of this treatment is the production of a con-

siderable amount of heat, and the gradual dissipation of a large amount of moisture. At the end of three weeks the manure becomes tolerably dry, and contains about 14 per cent. of water. In this state it is weighed and packed in bags. It is sold on the premises at 15s. per ton, or at 17s. 6d. delivered at the railway. Between the 1st of April and the 10th of August 12,000 tubs have been removed. The excreta weighed 261 tons, and the ashes refuse 460 tons. The amount of manure manufactured has been 346 tons, of which 261 tons have been sold for £187 9s.

24½ tons of dry ashes produced by sifting:—Fine ash, 7 tons; small cinders, vegetable and animal refuse, bones, &c. (burned in furnace), 10½ tons; larger cinders, burned in furnace of steam-engine (part of which will eventually be sold), 5 tons; broken glass, iron, bricks, rags, &c., 2 tons.

During the same week 12½ tons of excreta were brought in, and the estimated manure produced was 17 tons.

The cost of a week's production was as follows:—

	£	s.	d.
Superintendent	4	0	0
Wages (nine men)	8	10	6
Two horses	2	0	0
7 cwt. of coal to burn with cinders... ...	0	2	11
Chemicals	1	5	0
Rent of ground and interest on plant ...	1	10	0
	£17	8	5

Or, deducting the receipts from the sale of rags, iron, glass, &c., about £1 per ton.

At the time of this experiment there was therefore a loss upon the manufacture. At present this loss has almost disappeared, because the same staff of servants and horses have raised the manufacture from seventeen to twenty-one tons per week, and they are capable of making still more without any material increase of cost. Specimens of this manure have been examined by several chemists, and we have caused an analysis to be made by Dr. Hassall, who reports that it contains 26·1 per cent. of organic matter; of which 15 is carbonaceous. The amount of nitrogen is 1·153 per cent.; and of phosphates, 3·07 per cent.

Dr. Hassall estimates the commercial value of this manure, delivered on the land, at thirty shillings per ton. This estimate has been confirmed by an agriculturist of great experience, but he observes that the area of distribution will be limited, because the cost of carriage is increased by the very large proportion of useless matter in the form of sand, clay, water, &c. With this restriction it may be assumed that the process may be profitable.

What, then, are the objections to the adoption of this plan, and what are the advantages proposed? It is not pretended that the abstraction of a few tons of human excreta will effect any important alteration in the character of the Rochdale sewage, nor will it relieve the town from the necessity of having a good system of sewers. No matter how perfect this proposed conservancy may be, there will still remain the waste of dye-vats, the scourings of flannels and wools, the washings of streets, stables, &c.; and the river will still continue to be polluted if no means are adopted for purification before the sewage is turned into it. If at length the town is driven to adopt a system of irrigation, why introduce a manufacture the object of which is to deprive the sewage of some of its most valuable ingredients?

To this it may be answered that water and sewers do not effect the removal of all the refuse of our towns. That there is a large amount of animal and vegetable refuse which would choke up the drains, and must, of necessity, be thrown upon the dust-heaps. That the removal of the ashes so defiled is, under all circumstances, a considerable expense, particularly in densely populated districts. They contain so much worthless matter as not to pay for transport to a distance; and particularly where coal is cheap, they are allowed to accumulate in enormous quantities, by which the water-supply of the district is contaminated, and an insufferable nuisance created near the town.

In favour of the Rochdale plan it may be said that it has the great advantage of dealing completely with house refuse. Nothing is left behind, and very little wasted. The bones and the vegetable refuse which together ferment in dust-heaps and create an intolerable nuisance are at once burned, but their ashes are preserved. A sufficiency of valuable matter in the shape of human excreta is then added, to what would otherwise be worthless. The manure made will pay for removal to a distance from the town and to places where sewage cannot be profitably applied. In fact, the loss now involved in the removal of the refuse which sewers cannot take will be converted into a profit, and, according to the evidence of the advocates of sewage irrigation, without materially impairing the value of the sewage in an agricultural point of view.

But it is further urged that the new system is practically more successful in a sanitary point of view. Whilst it is freely acknowledged that water-closets are most admirably adapted to the highest conditions of civilisation, it is contended that they are by no means so well suited to the habits of the poor and ignorant, especially when each closet is used by several families, none of whom have a direct interest in preserving them in a satisfactory sanitary state. A water-closet is a very costly machine; it depends for its complete success upon a complication of conditions, which require great consideration on the part of those who use them. The cost of altering a privy on the Rochdale plan will not be half so great. Then it is urged that the sewers have in many cases been constructed without reference to the special use of water-closets. The local drains are of brick, and have often square bottoms, which permit the accumulation of soil and favour the generation of sewer gases; whilst the falls are often defective and the ventilation bad. In Lancashire, again, there are many reasons why the water should be economised as much as possible; and where this is the case the supply is apt to be scanty and irregular. The Rochdale arrangement therefore proposes to reduce the evil of defective house drainage to the lowest point by keeping out those elements which most readily give rise to the formation of sewage gases, and it does so especially in the courts and alleys of the poor districts where these defects are remedied with the greatest difficulty; whilst the rich, who can afford to see their drains well laid, are permitted to carry out the water-closet system, which will extend as soon as the superior want is felt. Furthermore, it is objected that there is in Lancashire a general prejudice against water-closets which obstructs their proper use. Cotton, wool, rags, &c., are often used, which interfere with their action, and obstruct the drains; whilst children cannot use them in their ordinary form. In the barracks it has been found necessary to adopt the modifications of Jennings and Macfarlane, which involve an amount of systematic attention such as a public administration can alone supply. And it is argued that if such an administration is necessary it may as well make the removal of ashes profitable as not. The advantage of the Rochdale plan is that it is simple and complete as far as it goes. The scavenger acts as a sanitary agent. He has no complicated machinery to look after; he has no difficulty in maintaining a wholesome condition even in the closest courts. Sentry-boxes have been erected in situations where a water-closet would have been quite impossible, and seats are provided for children as well as adults. The plan answers especially where there is but one closet for several houses. The universal testimony of the inhabitants proves that an immense improvement has been effected. Conversions are going on daily. Factory owners are doing away with privies, which poisoned the air in the workrooms by their unwholesome emanations. The carts move through the streets without creating any offensive smell, and no complaints of any nuisance have, as yet, been made by persons residing near the manufactory; indeed, the free use of carbolic and sulphuric acids tends to disinfect everything brought in.

Sufficient time has not yet elapsed for the development of any effect on the mortality, and as there are no records, nothing can be said as to the general prevalence of sickness. On the whole it cannot be doubted that the sanitary condition of the courts in Rochdale contrasts most favourably with that of any other town, and although the new plan of conservancy may not be universally applicable, it constitutes a valuable contribution to our experience on a most perplexing subject.

IRRIGATION AND SEWAGE.— The proprietors of the *Gardener's Magazine* have offered a prize of twenty guineas for the best essay on "Irrigation, with especial reference to the Utilisation of Sewage."

THE LANCET.

LONDON: SATURDAY, AUGUST 27, 1870.

THERE is nothing more remarkable in the revolution which has come over our views of the nature and treatment of disease than obtains in what may be called the region of liver pathology. In the old practice of physic the liver figured very largely. A certain group of symptoms, such as loss of appetite, sickness, furred tongue, constipation, and sallow or dirty complexion, were by common consent liver symptoms. If, again, the symptoms were somewhat vague and undefined and difficult of construction, the ample liver was the organ sure to be blamed. And in many other cases, where more accurate methods of diagnosis have compelled us to pronounce other organs to be palpably at fault, both patient and practitioner alike have shown a disposition to implicate the liver. The diagnosis has not been thought complete until it included the hepatic organ. It is one of the most curious things in human pathology, if not in human nature, that a certain considerable number of people seem rather pleased than otherwise to be told that their liver is affected. Every practitioner must have been struck with this fact.

Well, all this is either altered or should be altered; and the time has come when, by the clearness of symptoms which implicate other organs, the liver must either be absolved or held to be only indirectly implicated. Two or three things have conduced to change medical opinion. Not to be too strict in our enumeration of facts which explain the change, we may mention one or two such facts. First, physiology has been very modest in her contributions to the elucidation of the functions of the liver. When physiologists came to put down in black and white that which had actually been made out as to the uses of the liver, they have had until lately very little that was definite to write, and the little that they had to say was rather destructive than confirmatory of the ordinary views. One of the most universally recognised ideas in medicine was this—that we had the power of increasing almost indefinitely the action of the liver and the amount of its peculiar secretion. This was a great faculty for a drug to possess; and no wonder that a power so remarkable should be frequently used. The bile was regarded as only an excrementitious secretion, fit for nothing but removal from the system. Its partial retention was thought to be a common thing, and to be explanatory of half the ailments that the system was subject to. And so mysterious was the influence attributed to mercury that, when there was reason for thinking that bile secretion was going on excessively, even then mercury was given. A sort of homœopathy came over the most orthodox practitioner, and he thought it better to give mercury for an excess of bile than not to give it at all. Then came Dr. BENNETT'S experiments on dogs, which make it, to say the least, extremely doubtful whether mercury really has the power of increasing the amount of bile. And some practitioners, determined to have a justification for the administration of a drug they so much used, found even in Dr. BENNETT'S experiments the *rationale* of its curing cholera: it actually diminished, they said, the biliary secretion.

Our principal intention to-day is to say that there is a danger of practitioners losing too much their faith in the medical importance of the liver. When the favourite group of ideas regulating our daily practice has been disparaged, there is a risk that a simple scepticism concerning the truth of any other ideas should take possession of the mind. It is to prevent this, and to show its inconsistency with the present state and promise of our knowledge, that we now write. So far from justifying us in thinking less of the liver and its secretion, physiology is making it appear that the functions and processes of the liver are amongst the most interesting and the most important of any in the animal economy. We shall notice only a few of these.

The one idea of the old physiology was, that the liver secreted bile, and that the only purpose for which bile was secreted was that it might be excreted. People seemed to think that the more they excreted the better; and that Providence designed that mercury should complete the special action of the hepatic cells. Now, it is clearly established that bile is not merely or chiefly an excrement. The experiments of BIDDER and SCHMIDT abundantly show that animals fare badly if all the bile secreted by the liver is at once conveyed out of the body by the establishment of a permanent fistula in the fundus of the gall-bladder. Such animals, with bile secreted as usual, but kept from entering the intestine, undergo progressive emaciation until every trace of fat disappears from them; they lose nearly half their weight; the hair falls off; the breath and fæces acquire a very putrescent odour; the abdomen becomes distended with flatus; and, although digestion of food goes on after a fashion, it is after a very flatulent and putrid fashion, and the animals die by a failure of the vital powers. Such experiments show that bile in the intestine serves some useful purpose, and that the power to remove it out of the intestine is one that, even if we possess it, we should use very cautiously indeed. That the essential ingredients of bile are reabsorbed, probably after undergoing some change in the intestine, and not removed, is further shown by the fact that only a very slight proportion of them is to be detected in the fæces.

But modern physiology has greatly enlarged our notions of the probable functions of the liver by showing us, not only that its great palpable secretion is formed in the quantity of two or three pounds per day, mainly to be reabsorbed, but that the liver has the most curious and important relations to the formation of other substances, which are as interesting to physicians and practitioners as to physiologists. A few years ago CLAUDE BERNARD seemed to have completely demonstrated that the liver secreted *sugar* as well as bile. And physicians hoped that they were about to get great help from physiology in understanding and possibly curing diabetes. Since then the sugar-forming function of the liver has been a matter of the liveliest controversy between physiologists; one of our own physiologists maintaining most ably a negative position towards the proposition of BERNARD,

For a long time it has seemed as if Dr. PAVY had the best of it, and as if he had really demonstrated that the formation of sugar by the liver is only a post-mortem event, not a physiological one. It is a question which must be left to the physiologists. But, meantime, we must say that BERNARD'S experiments still retain a very high importance, and that his conclusions are not yet shown to be false. Even if no sugar is actually formed in the liver during life, it is a significant fact that this organ is loaded with a substance which quickly becomes sugar on the decline of vital conditions. But it is only fair to say that the latest experiments of physiologists confirm BERNARD in the view that, under normal conditions, sugar is found in the liver. This intensely interesting point has just been the subject of fresh experiment by an American physiologist—Dr. LUSK, professor of physiology, Long Island Medical College,*—who, with special precautions, has repeated the necessary experiments. Dr. LUSK concludes that the quantity of glucose in the right side of the heart is from two to four times greater than that found under corresponding circumstances in the jugular vein; that this excess argues a by no means insignificant amount of sugar in the pure hepatic blood before it has become largely diluted with the comparatively non-saccharine fluids of the venæ cavæ; and that we are forced to admit the fact of sugar-formation by the liver, though we fail to detect (herein confirming Dr. PAVY) the presence of sugar in the liver tissue, when after death the fermentation of the glycogenic matter is prevented. Dr. AUSTIN FLINT, jun., had come to similar conclusions, which he considers confirmed by Dr. LUSK'S experiments. Not only does the liver, then, secrete bile, but, according to BERNARD, FLINT, LUSK, and others, it secretes sugar, not apparently to the exclusion of other organs and tissues, but in a much larger quantity than these. It is impossible to decide as yet the significance of this function in health and disease; but it is clear that our advancing knowledge does not warrant us in thinking less lightly of the liver as a factor in the production of diseased or abnormal states.

We have not yet exhausted the importance of the liver and its functions. According to MEISSNER, the liver is the chief source of urea in mammalia and of uric acid in birds. He has found this substance in considerable quantities in the livers of mammalia, and in very slight quantities in the flesh. In birds, in which urea is represented by uric acid, a given weight of liver yields many hundred times more of uric acid than the same weight of muscle, which has been too exclusively regarded as the source of these substances. Pathology has some facts of its own to be associated with these physiological ones. In diabetes, for example, it is well known that the amount of urea excreted is increased; in other words, that the large excretion of sugar coincides with a morbid excretion of urea. Moreover, cases of azoturia, or increased excretion of urea, such as have been discussed by PROUT, PARKES, RINGER, ROBERTS, and others, have been observed to be caused by mental anxiety—an influence recognised in the production of diabetes. Still further, a copious and persistent deposit of urates is a characteristic feature of many cases of organic disease of the liver. Such deposits, even when more scanty and occasional, often guide the practitioner in prescribing. On the whole, it is manifest that, as physicians and practitioners, we shall have to consider the liver and its functions more than we have ever done; and we may say, as a consolation for the disparagement of old-established notions of the uses of calomel and other mercurials, that there is little doubt that we shall be able powerfully to control the great functions of the liver by either diet or medicine, or both.

* An account of Dr. Lusk's experiments may be seen in the "New York Medical Journal" for July.

THE public mind has been engrossed by the one absorbing topic of the war. When we strive to realise to ourselves the amount of mortality and misery that has ensued in the brief interval of a fortnight, we are apt to lose all faith in humanity, and to declare that of all delusions the belief in the progress of Christianity and civilisation is the greatest. The lust of conquest, the gratification of ambition, or the desire to remove a neighbour's landmark—these are the things that make up the material of modern history. As members of the medical profession, it is our desire no less than our duty to save life, and we do not consider our labour as altogether unavailing if we can only be instrumental in prolonging it. We must not forget that there are other ways in which lives may be wasted besides that of war; and although we may not recognise our responsibility as a nation, we are in a sense responsible, nevertheless, for the lives of all whom we enlist in our public services. The effects of a chronic drain on our population may not be so obvious, but they are not the less real on that account; and it seems surprising that we can go on year after year in the old ruts. Take the case of India. We send a large body of troops to that country. Because they perish from epidemic disease—cholera, fever, and such-like—they are thought to die from natural causes. We have, perhaps, something like a momentary feeling of surprise and regret as we read Dr. BRYDEN'S statistics, but we are content to go on filling up the gaps in the ranks thinned by the endemic diseases of the plains of Hindustan. The loss of life among the European troops in the Bengal Presidency was, Dr. BRYDEN tells us, 42·08 per 1000 during the past year; and that amongst the women and children belonging to the same troops was likewise terribly large. The question arises—Are we justified in persevering in a course which the results of each succeeding year prove to be so detrimental and deadly? Even if we regard this question on the lowest grounds of self-interest, we are not justified in placing our troops in localities which experience has proved to be so pernicious to their physical efficiency. There is no economy more real and vital than that which reduces the sick-rate of the British force serving in India. A sick soldier is a very expensive article.* A deterioration from the standard of health in the European constitution

* Dr. Ambrose, in a very careful and well-reasoned Report on the Medical History of the 58th Regiment, has demonstrated that in one year the deaths in that corps were at the rate of 168 and the invaliding 111·1 per 1000, or a total loss from the two causes of 279·8 per 1000. Taking the official estimate, that it costs £100 to replace a soldier in India, this involves a loss to the State of £20,400—to say nothing of the cost of medicines, hospital, camp equipage, and the remoter consequences of tropical disease on the constitution.

is an inseparable concomitant of residence in the plains of India; and it is tolerably notorious that troops may be located in the hill stations with a health-ratio even superior to that they would enjoy in a European climate. The case of the 58th Regiment is one in point, and it is not by any means a solitary one. The right wing of that corps was three years at Senchal; it was in a miserable condition when it arrived at the hills, and yet during that time it maintained a state of health-efficiency that has rarely been surpassed by troops in any part of the world. The left wing, on the other hand, was stationed in the plains, and the sick and invaliding rates were high; seven times as many deaths in proportion to strength occurred in it as in the other wing. The two wings reunited afterwards at Allahabad, and although the men of the right wing were in rude health on joining those of the left, they were no sooner exposed to the same inimical conditions of the plains than they began to contract disease, with the result that "every man in the regiment had, on an average, been nearly three times admitted into hospital in less than twelve months." It may be urged that military or imperial interests require that the present force should be located in the plains; but such does not seem to be the case. With the facilities for moving troops which now exist, the conditions of the country are altogether changed; and the appearance of a large force in the highest state of physical efficiency is much more likely to influence the minds of the native population than that of a body of troops crippled and enervated by disease. Sir WILLIAM MANSFIELD, in a recent speech, declared that the mortality in the hill stations was insignificant compared with that in other parts of India; and he added that, in his opinion, one-fourth of the British force might always be stationed in the Himalayas. The Sanitary Committee of the War Office may argue as they will, but everyone practically acquainted with India will bear us out in saying that the so-called palatial barracks are, sanitarily and financially speaking, failures. They have been rightly designated "sun-traps"; for the experience of those who have been located in them agrees in declaring them to be excessively hot and uncomfortable, as well as unpopular with the troops themselves. There are many other considerations which might be urged against these barracks, which were designed by men, be it remembered, who had never been in India; but, in our opinion, the most prominent objection to them consists in this: that, having been erected at such great cost, the Indian Government is naturally induced to utilise them to the neglect of localities where troops could be stationed without suffering in health.

Having said thus much, we are bound to state that the main cause of our taking up this subject at the present time is the appearance of a most valuable paper by the Sanitary Committee of the War Office as to the best method of preventing the disease and loss of life incidental to military service in India. This document contains contributions from Sir GALBRAITH LOGAN and Inspectors-General Dr. MUIR and Dr. BEATSON. The first question to which these authorities address themselves is as to what should be the composition of regiments to avoid the losses consequent on allowing unsuitable men to go there. Medical officers of the highest rank and experience are unanimous in their expression of opinion that one of the frequent causes of the high rates of sickness and mortality is the large number of boys and growing lads sent to India. The experience of four regiments recently forwarded to that country is taken in illustration. The Royal Sanitary Commission on the Indian army strongly urged that no recruit should be sent to India under twenty-one years of age, nor until he had completed his drill at home; but, judging from numbers of men coming under one or other of these categories in these regiments, it would seem that this prudent recommendation has been practically set aside. In the case of the first of the four regiments on the list—the 92nd Highlanders—239 soldiers were under twenty years of age, and 116 had not completed their drill; and the consequence was that the immature men of this corps suffered terribly from fever and endemic disease. And this had likewise been the case with another regiment—the 21st Fusiliers,—which may be said to have been, practically, rendered ineffective from the prevalence of malarious fever contracted at Kurrachee. The French experience in Algeria is to the same effect—viz., that the soldier stands the conditions of service in that country with least damage at the age of twenty-five. There seems to be no difference of opinion as to the propriety of landing troops in India within the last two months of the year. As our readers are possibly aware, the present invaliding arrangements comprehend the sitting of a general invaliding board in October, with the new overland-route system of steamers, supplemented by vessels chartered round the Cape. Several serious disadvantages attend this system. October being the end of the hot weather, on the one hand, some of the men invalided then would in all probability have recovered if they had remained during the cold season; and, on the other, the men with organic disease or shattered constitutions that are embarked at that time arrive in England during the cold weather, to the imminent danger of health and life. As the Sanitary Commission remarks, a man who can stand these vicissitudes of temperature and climate without injury is scarcely to be considered an invalid at all. Of the sick soldiers that came home from India in January last on board the *Crocodile*, a considerable number died of pneumonia on the voyage, or soon after their arrival. To obviate these occurrences, it is proposed that the Indian invaliding boards should sit at the end or beginning of the year; and that arrangements should be made that the invalids reach the port of embarkation and go on board, so as to arrive in England not earlier than April.

The last, and perhaps the most important subject of inquiry is as to the best plan for locating troops on their arrival in India, and subsequently during their tour of duty in the country, so as to render the climate as little hurtful as practicable. It is an axiom that no regiment which has suffered from malarial disease at a malarial station ought to be moved into another malarial station, still less into a station more unhealthy than the one it has been suffering in before removal. It has unfortunately happened that the most malarial station in India, Peshawur, lies in the tour of duty of corps proceeding from other malarial stations, and this no doubt has been one cause of the excessive loss

of regiments in the Peshawur valley. The Commissioners are of opinion—

"That, for the purposes of health, regiments on first arrival in India should be sent to the hills to spend their first two years' service there, and that the hill stations should be of sufficient number and capacity to accommodate one-third of the European force serving in India, by which every regiment should serve two years in the hills for every four in the plains. It is not intended that men should be kept idle. Evidence has been produced showing clearly the remarkable degree of health enjoyed by working parties, employed chiefly on road-making in the mountains. Wherefore it is believed that additions to present barracks, and even new ones, might be mainly made by the men themselves with great advantage to their health, and this occupation would not interfere with their military employment during the winter. Every hill station might, in addition to accommodation for a regiment, provide for 150 invalids."

IF the guardians employ midwives to attend the poor it is clearly necessary that their duties should be accurately defined, and that they should be held responsible to some one for the manner in which their work is done. Great abuses have continually prevailed. Women have been placed in charge of so many cases in extensive districts that they could not attend to them personally. They have been compelled to trust the poor to ignorant assistants or apprentices, or to medical students who have paid for the privilege of gaining experience in this branch of practice. They have, also, in many cases charged the poor extra money for what is supposed to be more attention, and for medicines supplied. The fee paid by the guardians has, in many cases, been a help to those who ought to pay the whole themselves. In the Holborn Union it appears that the abuse has been in an opposite direction; for the midwives have been accustomed to attend not only natural cases, but miscarriages at every stage, and premature labours, even of a complicated nature, until, as it would seem, the district medical officers actually refused to have anything to do with such cases. The matter thus came under the consideration of the guardians, who referred it to a committee for report.

It has now been ordered that the midwife must attend every case personally. That she must nominate a certificated substitute to act during her unavoidable absence or inability to attend. That she shall not be required to attend any but natural labours. That she must send immediately to one of the district medical officers in all preternatural cases; in cases lasting more than twenty-four hours; in cases where the pulse has risen to more than 100 in the minute; in cases where there is frequent, violent, or continued hæmorrhage; in cases where the placenta is retained more than an hour; and in all cases of doubt or difficulty. The midwives are on no account to administer chloroform, to use instruments, or introduce the hand into the womb; and they are to report, as soon as the delivery is completed, the nature of the presentation, the duration of the labour, and the quantity of ergot of rye that they have administered. Lastly, the medical officers are requested to visit each case, and to certify that these instructions have been complied with.

We commend these excellent regulations to the consideration of the Poor-law Board. They are conceived in the true interests of the poor and the public, and they show proper regard to the position of the medical profession. There is continually a tendency on the part of midwives to assume too much responsibility, and that tendency is in general in proportion to their ignorance. Every accoucheur must have experienced the sad results of parish midwives having delayed to send for assistance until too late. Both mothers and children have in such cases often been sacrificed.

The guardians have also directed that the midwife shall obtain a supply of beef-tea for the use of exhausted patients, and, upon the certificate of the medical officer, stimulants will also be allowed. We hope the excellent example set by the Holborn guardians will not be lost upon the Poor-law Board. We have repeatedly brought the subject under their notice, and it is clear that such regulations should be insisted upon wherever midwives are employed.

IT will be remembered that when the Royal Commissioners on Water-supply were conducting their inquiry, a point much debated in evidence before them was whether or not a river which had once been contaminated by sewage became after a flow of some miles freed by oxidation from polluting organic matter, so as to render the water safe for human consumption. Without referring to extreme theories, we may say that, while a majority of the medical and chemical witnesses expressed a general belief in the oxidising powers of running water, the extreme difficulty of fixing any limits within which the operation could be safely counted on as having completed itself was obviously present to their minds. In point of fact, if we had to put into fewest words the inference deducible from the evidence offered upon the question at issue, we could not better do so than by adopting the language used by Mr. SIMON:—"Water into which sewage has been discharged is, in relation to the matter now under consideration [i.e., its fitness for human consumption], an experiment on the health of the population, and I do not think that that experiment ought to be tried." The Commissioners, however, in their Report, leant very much to the doctrine of the self-purification of rivers as regards ordinary sewage pollution; the more serious hypothesis, that certain matter capable of producing cholera or other specific disease might remain unchanged by oxidation, they set aside as beyond the scope of their inquiry.

We do not think that the terms of the Royal warrant for their appointment justify the self-imposed limitation which the Commissioners adopted, because the chief end and aim of their inquiry was to ascertain how a supply of "unpolluted and wholesome water" could be obtained for the population. But if a water contains matter capable of producing specific or general disease, it can by no stretch of imagination be considered wholesome; and hence the importance, in a sanitary point of view, of the "experiment" alluded to by Mr. SIMON does not appear to us to have received from the Commission the consideration which it deserved.

Nothing can better illustrate the absurdity of our present methods of initiating legislation on sanitary matters, and the want of a central health authority acting upon definite principles, than the fact that within some twelve months

we have had two Royal Commissions reporting upon the intimately related subjects of Water-supply and Rivers-pollution in almost flat contradiction of each other. Thus the Water-supply Commissioners, as we have already observed, adopted in their Report the self-purification theory in reference to sewage-polluted rivers as sources of "wholesome" water-supply. The Rivers-pollution Commissioners have done their best to demolish utterly the notion that sewage-polluted rivers become pure by oxidation within limits of time or flow predicable of any rivers in this country.

The Rivers Commission thought the subject so vitally important as affecting their general inquiry that they determined to submit it to careful experimental investigation. Points in the course of the rivers Irwell, Mersey, and Darwen were selected as yielding the requisite conditions of the problem to be solved in reference to pollution, flow, and oxidation. We cannot, of course, give the details of the experiments, which appear to have been carefully and fairly conducted; we must be content with simply stating the conclusions arrived at. These are—(1) That, at a temperature not exceeding 64° F., a flow of thirteen miles produces but little effect upon the organic matter dissolved in water; (2) That a stream containing 10 per cent. of sewage would lose not more than 6 per cent. of its organic carbon and 28 per cent. of its organic nitrogen during a flow of ninety-six miles at the rate of a mile per hour, and that the reduction would only amount to 25 per cent. of organic carbon and 33 per cent. of organic nitrogen if the flow were extended to a hundred and ninety-two miles at the same velocity; (3) That so far from sewage mixed with twenty times its volume of water being oxidised during a flow of ten or twelve miles (as has been alleged before the Water-supply Commission), scarcely two-thirds of it would be so destroyed, even on the most favourable assumptions, in a flow of one hundred and sixty-eight miles at the rate of a mile an hour, or after the lapse of a week. The Commissioners then state their deliberate opinion as follows:—

"Thus, whether we examine the organic pollution of a river at different points of its flow, or the rate of disappearance of the organic matter of sewage when the latter is mixed with fresh water and violently agitated in contact with air, or, finally, the rate at which dissolved oxygen disappears in water polluted with 5 per cent. of sewage, we are led in each case to the inevitable conclusion that the oxidation of the organic matter in sewage proceeds with extreme slowness, even when the sewage is mixed with a large volume of unpolluted water, and that it is impossible to say how far such water must flow before the sewage matter becomes thoroughly oxidised. *It will be safe to infer, however, from the above results, that there is no river in the United Kingdom long enough to effect the destruction of sewage by oxidation.*"

Obviously this Report places the Government in an awkward predicament. They are on the horns of a dilemma. For if the Rivers Commissioners are right, the Water-supply Commissioners are clearly wrong; and the recommendations of the latter fall to the ground, unless the conclusions of the former are proved to be untrustworthy. Meanwhile the idea that three millions of people are the passive subjects of an "experiment," in which the conditions unfavourable to a satisfactory issue are shown by Report No. 2 to predominate, is anything but a comfortable one.

A FUNNY little farce (according excellently well with what is popularly designated at the West-end "the silly season") was played a few days ago in the rooms of the London University, but not to crowded houses. "My Lords" courteously announced that, twenty-five vacancies having occurred in the medical service of the navy, "they were prepared &c. &c. &c." The strings were pulled, the farce was played, and, as a result, her Majesty's navy still requires fifteen medical officers, who, as it appears, cannot be obtained from her Majesty's dominions; and this, too, at a time when a European war is raging, when the neutrality of this country may cease at any moment, and when the relative merits of Mr. REED'S broadsides and Captain COLES'S turrets may possibly cause the services of members of our profession to be required, if not appreciated, in our fighting ships. The public naturally asks: "Is there not a cause?" In reply thereto we refer them to our pages and to the professors appointed to conduct the so-called "competitive" examinations. The former record general deficiencies and special grievances in the service that ought to have been remedied years ago; and the latter will, if disposed to do so, show or tell of bad grammar, indifferent spelling, and lamentable professional ignorance,—indicating that the naval medical service is now fast becoming a "refuge for the destitute." Very able men entered the service years ago, and still remain: good men have lately joined; some remain, some resign. But the gist of all that has occurred with respect to this service during the last four or five years goes to prove that the Admiralty is reaping the fruits of the discontent and distrust which have prevailed. We may at any moment be plunged into war. Our navy must, as a necessary consequence, be actively engaged in that war. And so, if war came, the economical Government of this country, destitute as to quality and quantity of surgical assistance, would be compelled to appeal to our civil hospitals and beg for skilled aid, which skilled aid must be paid for at a scale tending to increase cheese-paring estimates by a very considerable sum. Meanwhile, where is the Medical Director-General of the Navy, and what is he doing?

Medical Annotations.

"Ne quid nimis."

ST. THOMAS'S HOSPITAL.

THE magnificent pile of buildings approaching completion on the south bank of the Thames not unnaturally raises inquiry as to the medical staff to whom the care of these splendid wards will be entrusted. This inquiry has extended beyond professional circles; and the public is beginning to ask who are the gentlemen composing the medical and surgical staff of St. Thomas's Hospital, and how are they estimated by their professional brethren. Now, St. Thomas's Hospital has for years stood in the unfortunate position of being overshadowed by its close neighbour—

a former colleague, but more recently its very successful rival—Guy's Hospital; and whatever may have been and are the talents of many of its officers, it is no secret that some of the most noteworthy of late years have been importations from elsewhere, and not old St. Thomas's men. From circumstances it was known that there must be several vacancies on both sides of the house about the time when the new hospital was occupied; and it has been hoped by many friends of the ancient Royal charity that opportunity would be taken to strengthen the staff by a careful selection from among its own *élèves*, or, if these were wanting, from the profession at large. We are far from saying that this is not the earnest intention and wish of the officials of St. Thomas's; and it is only because what we presume is the first step in the necessary process of enlarging the medical staff has been taken that we now refer to the matter.

For some time St. Thomas's has had only one assistant-physician, Dr. Clapton, and that gentleman having recently been promoted, advertisements have been put out for the election of two assistant-physicians, and candidates for the appointments were to send in their names by the 16th inst. We have purposely abstained from noticing the subject until after this date was passed, lest we should be thought to have any desire to influence the election on behalf of any particular candidate; nor have we now the least knowledge of the names or claims of any gentleman who has sent in an application for the post. All that we have to urge upon the Treasurer, and upon the medical staff by whom he will doubtless be advised, is to get the very best men they can at whatever cost—not merely young men against whom nothing can be urged, and who may be thought very well fitted to fill a subordinate position, but, if possible, men who, as far as they have been able, have shown a willingness to work in the great field before them, and who are likely to be able to fill higher posts with credit to themselves and renown to their hospital.

We do not regard it as a very healthy sign that the election by a General Court of Governors is to take place in September—the month when the majority of the better classes of society are on the wing. The Governors of St. Thomas's may be different from other people, and prefer to take their holiday in town; but we should imagine that no great opposition to the nominees of the Treasurer is to be expected, and therefore the greater responsibility there is upon that gentleman's shoulders. An autocracy is after all not a bad form of government, if the autocrat will be at the trouble to be always right; and it is because we foresee the great necessity for Mr. Hicks's being firm, and to a certain extent independent of local influence, that we call attention to the very important duties he must shortly undertake.

THE LATE SIR F. POLLOCK, BART., F.R.S.

WE are confident that we echo the unanimous feeling of the profession in asserting that by the death of Sir F. Pollock, late Chief Baron of the Exchequer, it has lost one of its warmest friends, who ever evinced a deep interest in its welfare, and who always highly appreciated the services of its members. For many years the deceased was standing counsel to the College of Surgeons. Not unfrequently did he allude to the honour of having been elected to that office unsolicited, and more especially so as it secured him the privilege of often meeting the leading members of the profession, as a guest of the Council, and of enjoying that intellectual conversation which he was so well capable of sustaining.

Once, when presiding at the distribution of prizes at St. George's Hospital, in addressing the pupils, he remarked that, had he been able to choose his lot in life, he would have *studied* medicine, but he would have *practised* law—so truly did he estimate the value of the one, and so essentially had he secured the honours and the emoluments of the other. No advocate at the bar ever treated a medical witness with more kindness or more consideration; no judge ever analysed with greater clearness or power scientific or professional evidence. His love of science was truly great. In chemistry, astronomy, physiology, or medicine, he appeared as much at home in conversation as if to each he had devoted a lifetime of study, and there are not a few amongst us who can testify how true this statement is. How great was the advantage of this knowledge to him in the practice of his profession, no one knew better than himself; how much the medical profession owed to him for it, none knew better than those who came before him in any anxious or doubtful case; and many are the practitioners who owe a debt of gratitude to him for the earnestness with which he watched over their interests, and for the truthful, honest, and masterly manner in which he elucidated the complicated points of a case, and influenced a verdict which, under other circumstances, might have resulted, though most undeservedly, in damage to their professional reputation.

He died in his eighty-seventh year, beloved by all who knew him; a wonderful example of what talent, industry, and honesty may secure for a man. He was the architect of his own fortune; he began the world's struggle dependent entirely on his own exertions, but in his success he never forgot the duties success entailed upon him. He has gone to his rest, leaving the world the better for his living in it, at the end of a high and honourable career, which had won for him the deepest respect of our profession.

LANGENBECK ON GUNSHOT WOUNDS.

THE *Allg. Med. Centr. Zeit.* (Berlin) of Aug. 10th quotes the following opinions of this eminent surgeon. When the wound inflicted is very severe, the treatment must begin immediately after the conflict. It should be decided before the second day whether the limb can be saved or not. Necessary amputations should be performed within the first twenty-four hours, and measures for the saving of limbs in other cases should begin on the very field of battle. In the latter case, the limb should be so bound up as to remain motionless. Secondary amputations are followed, in time of war, with a frightful mortality. Gunshot wounds of the shoulder, elbow, or ankle-joint may mostly do well after secondary resections; but when the parts are extensively lacerated and injured (including the hip-joint, and perhaps the knee-joint), immediate resections are clearly indicated. These resections ought always to be performed by the simple longitudinal incision.

Resection or amputation at the hip-joint should be performed in appropriate cases; and, after performing the latter, operation eleven times, the author is inclined to think that the fatal cases are not due to actual exhaustion or shock, but rather to the effects of chloroform or hæmorrhage. If resection of the hip-joint is possible, it should be preferred to amputation, as such resections have often been crowned with success. When it cannot be done at once, the limb should be secured in Bonnet's apparatus (composed of a kind of wirework box); ice should be applied, and incisions made, if necessary, to free pus or spiculæ of bone. This resection is so simple an operation that it should be taken into serious consideration in the surgery of the war; but a patient suffering from hip-joint gunshot wound should not be subjected to any long journey.

Knee-joint injuries should be treated on the principle of conservative surgery, although Larrey, Guthrie, Esmarch, Stromeyer, Andrews, and Woodworth of America, do not

think so. Out of eighteen injuries of the knee-joint in Bohemia, fourteen recovered. Immediate amputation, or resection when the former operation is refused, is required when the articulation is shattered in several separate fragments, and the soft parts lacerated, or when the bleeding from the popliteal vein or artery is considerable. Other less destructive injuries should be treated on the expectant method. When the latter is to be used, explorations with the probe or finger should not be made; palpation, and the changed shape of the joint, are quite sufficient diagnostic signs. The proper way of treating such lesions is to keep the joint motionless, from the moment the injury has been received to perfect cure, by means of a plaster-of-Paris apparatus. Patients thus secured can travel on railroads, and the proper fenestræ in the apparatus should (having been indicated before) be cut when the patient reaches the hospital. Ice may be placed over the plaster bandage for the first three or four days, but afterwards disinfecting compresses may be applied to the wounds, previously covered with oiled lint.

Resections of the ankle-joint after gunshot fracture have turned out successfully in M. Langenbeck's hands; he lost only two patients out of eleven such resections. Amputation is only justified where the soft parts are considerably torn and contused, or where the main vessels have been injured. The resection may be postponed until suppuration has set in; but it should be performed immediately after the injury in those cases where formerly amputation was resorted to. The periosteum should be carefully preserved, and a fenestrated plaster-of-Paris apparatus ought at once to be used.

HOSPITAL DISPENSING.

OUR contemporary, the *Pharmaceutical Journal*, taking its cue from the accidental poisoning, from her own carelessness, of an old woman, a patient of the Royal Free Hospital, makes certain strictures on the "carelessness about bottles, and labels too, at a great many hospitals." Its strictures are principally directed against the bottles used by patients who are required to bring their own bottles, and do not bring poison bottles for their liniments, lotions, &c. The homily on this omissional sin of the out-patients is indirectly brought to bear on the medical profession, and we are told that the case shows that "those medical authorities who are most urgent in pressing the adoption of stringent restrictions upon dispensing by pharmaceutists, are by no means the most earnest and careful in themselves adopting such precautions." We are far from believing our hospital system perfect, especially the out-patient department of it. But even this section of its imperfect work is an immense boon to the sick and diseased poor. The medicines are now, in most London hospitals, prepared by skilled pharmacists, in whom the dispensary administration is to a great extent placed, so that the censure directed against us points its sting towards our critic. The case in question occurred to the patient of a hospital whose maladministration we had occasion to notice some two years ago, at which time the dispensary arrangements particularly met with their share of obloquy. Since then, especially in this department, the management have endeavoured to rectify matters, and their efforts we know have to some extent been successful. In this instance the lotion and medicine bottles were alike—wine bottles are frequently brought by the patients,—but the lotion was labeled, in large and distinct letters, "poison." And suppose poison bottles, which are not every-day wants, be provided, in the hands of the ignorant they, too, would be liable to make peregrinations almost as varied as any other description of bottle. We have sometimes known them presented by hospital patients for their allowance of cod-liver oil!

This *tu quoque* style of argument comes with exceedingly bad grace from such a source, when we remember that the *Pharmaceutical Journal* is the organ of a society at whose last annual meeting a majority of the members refused to adopt any uniform mode of storing even their deadliest poisons, and objected to a bye-law being passed which would have made it optional for them either to use poison bottles for such purpose, or to keep these dangerous agents apart from their general stock of drugs. When our contemporary has managed to set its own house in order, and provided us with an official "poison-bottle,"—for that is surely not the duty of hospital authorities—we expect it will endeavour to found a beneficent society for the supply of hospital patients with poison-bottles gratis, for it cannot ask the hospitals to provide their out-patients with bottles.

The moral, however, to be gleaned from the case referred to is the danger of taking, or giving, and, we may add, of prescribing, medicines "in the dark;" in the latter category the class which our contemporary represents are the greatest malefactors.

THE UNIFORM OF MILITARY SURGEONS AND AMBULANCE CORPS.

A REPORT has been promulgated that the French fired upon the medical staff and others connected with the ambulances of the Prussian service. Putting aside the inhumanity of such a proceeding, this would be a direct breach of the Geneva Convention agreed to by the French Government. A correspondent offers an explanation which will, we think, turn out to be the correct one—namely, that the alleged firing, if it took place, arose from ignorance on the part of the French of the real character of the body attacked. Admirable as the organisation of the Prussian medical service is allowed to be, there is not sufficient distinction made in the dress of the medical officers and of their corps of sick bearers to render them easily distinguishable at a distance from the other and more strictly combatant parts of the army in the field. As there cannot be two opinions about the inhumanity and inutility of firing upon ambulance-waggons, and those engaged in bearing wounded men from the field, we certainly think that some method should be adopted by which all the *matériel* and *personnel* of the ambulance field service can be readily distinguished. Uniformity of practice is the way to effect this. Why should not all the European powers agree to adopt one and the same uniform for officers and servants engaged in the medical and hospital services? If all wheeled conveyances detailed for the wants of the sick were marked with a red cross on a white ground, and carried a flag of the same design—which is, indeed, the case already with many of these ambulances—and if, moreover, the medical men and sick attendants all wore uniforms of the same colour, and of similar character, there would be no room for mistakes. A medical officer ought to be readily and at once known as such on the battle-field, and he ought to possess a uniform which should at the same time be of a serviceable kind. The cocked hat worn by our medical officers is a ridiculous head-dress. But for the feather the surgeon might be mistaken for a combatant staff officer. We do not suppose anyone could go through the duty of dressing wounds, tying bleeding vessels, or performing amputations or other surgical operations in a big hat which requires an act of attention to keep comfortably adjusted to the head, and tends to heat the brain, and throw a shadow over the fingers engaged in operating. At the same time, there can be no reason why a yellow uniform should be adopted,

beyond the fact that it is the colour of a quarantine flag, and would be so ludicrously ugly that a medical officer would certainly be mistaken by every small boy for a merry andrew or a street juggler. Besides, a fatal objection to this colour would be the fact that it would speedily become soiled and blood-stained in service.

MORTALITY AT SEA.

WE have again to report the arrival of a vessel from the West Indies in a fever-stricken state. The *A. W. Singleton*, of Yarmouth, Nova Scotia, a vessel of 561 tons register, arrived at Greenock a few days ago, with nearly all her crew more or less *hors de combat* from the effects of yellow fever. The second officer, the steward, and three seamen died during the passage, and, for some days, the chief officer, a seaman, and a boy were the only individuals on board fit for duty. We reiterate that in this case, as in that of the steamship *Mexican*, lately reported, the circumstances clearly indicate the necessity for an official inquiry, which it is the duty of the Board of Trade to order and to conduct. Fever-stricken vessels are continually arriving in our ports from the West Indies, and although in the interests of commerce no useless or superfluous restrictions should be placed on merchant shipping, it is necessary, for the sake of humanity, as well as of the public safety, and that of our ships at sea, that some investigation should take place, with a view to prevent vessels starting from West Indian ports with cases of yellow fever on board. The Board of Trade has done much in the way of sanitary legislation for our floating population, but appears to think that they may now "rest and be thankful." As, however, the lives of many thousands of British subjects depend, indirectly, on the legislation proceeding from this department, we suggest to the authorities at Whitehall-gardens that "their strength is *not* to sit still."

A LIBEL ON THE PROFESSION.

THE *Builder* of last week contains a wanton attack upon the medical profession, as to which it is hard to say whether the temerity of the writer or his evident unfamiliarity with medical history is the more conspicuous. Ostensibly dealing with "Town Death-rates in Spring, 1870," our contemporary has spun a whole column of preface about sanitary progress, which is throughout palpably suggestive of amateur workmanship. The old proverb that the cobbler should stick to his last comes forcibly to one's mind on comparing the latter part of the article with its beginning. The medical profession, we are told, "have not generally identified themselves with the cause of sanitary progress"; nay, more, "the progress that has been made may be said, in the main, to have resulted without the active co-operation of the profession." It is then insinuated that "indirectly and almost intuitively the profession have felt that sanitary progress was antagonistic to their self-interest." A more unfounded or absurd charge was never penned. Will the wiseacre who writes thus of our profession bring forward anything in the remotest degree approaching to evidence in support of his opinion? We ask, who but the glorious fathers of our profession made sanitary progress possible? From whose ranks but ours came those who first discovered and proclaimed those hygienic laws which are now so widely known and practised? From Galen and Hippocrates down through the long roll of names illustrious in science—Mead, Pringle, Lind, Jackson, Blane, Southwood Smith, Simon, Farr, Sutherland, Martin, Milroy, Parkes, to mention but a specimen few,—the progenitors of all that is known about the preservation of health have sprung from the ranks of medicine. This is history, not fiction; and every sanitarian has it at his fingers' ends. Only a novice would be liable to error upon that point. The discreditable insinuation that medical men withhold their co-operation in matters relating to the prevention of disease from selfish motives may be dismissed with the simple answer that, not only in places where there are regularly appointed medical officers of health, but in scores of others where they occupy no official position and get what the homely metaphor describes as "more kicks than halfpence" for their pains, hard-working members of our profession have striven, and are striving, nobly for the public weal in respect of improved sanitary condition. Middleton at Salisbury, Macmillan at Hull, Rigden at Canterbury, are instances of this self-ignoring character.

The truth is, and it is much more widely appreciated than our contemporary imagines, that, as a rule, the case is just the other way. We think more of how disease is to be diminished than how to make our fortunes; and we dare affirm that the principle of justice to oneself before generosity to others is, with the profession, generally reversed in practice. But, if it were otherwise, the *Builder* would find it no easy task to show good cause why medical men should be less selfishly inclined than architects and engineers, both of whom have the reputation of taking care of "number one."

SIR DOMINIC CORRIGAN, BART., M.D., M.P.

WE offer our congratulations to Sir Dominic Corrigan on the occasion of his triumphant election to represent Dublin in Parliament. It is not easy to see how Dublin will get on without the medical services of Sir Dominic. But Dublin herself has determined that her most popular physician shall come to Westminster, and change the consulting-room and case-book for the House of Commons and the study of blue-books. It is also somewhat difficult to understand how a physician of Sir Dominic's age and standing should be willing to exchange a metropolitan position in the sphere of consulting practice, in which he has been *facile princeps*, for the region of politics, in which consultation will be replaced by controversy, and in which, further, he will have many peers. And yet the difficulty is not so great after all. The medical profession has long known that there is in Sir Dominic's nature a love of debate, if not of strife, and that he has a real Irish satisfaction in having an opponent. Since the creation of the Medical Council by the Act of 1858, Sir Dominic has been the representative in the Council of the Queen's University in Ireland; and from the time that reporters have been admitted into that body, he has been one of the orators of it most familiar and most entertaining to the profession, if not always most judicious in the use of his acute mind and his undoubted powers of debate. Latterly Sir Dominic has been so disputative and contentious that he has decidedly lost influence in the Council, and his advocacy of a point has been unfavourable to the chances of its being carried. We are fain to believe, however, that Sir Dominic will profit by his experience; and, if he does so, he may be of great service in Parliament both to the profession and to the public. He is one of our ablest physicians. The unprecedented honour of being chosen President of the College of Physicians of Ireland five times in succession was paid to him. He will therefore speak with a considerable medical authority in the House. He will doubtless use the advantage over his colleagues in the Medical Council given by his new position for furthering his peculiar views of medical and sanitary matters, and perhaps hopes to find Parliament more willing to adopt his views than the Medical Council has been. We shall see. Meantime we repeat our congratulations to Sir Dominic. It is a compliment to our profession when a great city parts with its

favourite medical adviser to send him to Parliament. No one will be more gratified than we shall be if Sir Dominic, by care and soundness, and moderation in debate, inspires respect for the profession he so greatly adorns, and furthers those interests of the public which are bound up with the higher education and elevation of the medical body.

A NEW ANTISEPTIC.

THE hydrated chloride of aluminium, to which Mr. John Gamgee has recently drawn the attention of medical men and of the general public, appears to be a valuable antiseptic. It is quite as potent as chloride of zinc or carbolic acid, and is at the same time non-poisonous, and devoid of unpleasant smell of every kind. These qualities will no doubt ensure its being extensively used, and at no distant date we may expect it to displace the antiseptics which are at present in vogue.

It is somewhat strange that this substance should have been so long overlooked as a possible antiseptic, and Mr. Gamgee certainly deserves credit for suggesting the utilisation of it for this purpose. The reason why it has been passed over is probably to be sought in its not being a waste product in any common chemical manufacture. The anhydrous chloride of aluminium, which is manufactured in order to serve for the preparation of metallic aluminium, is far too costly on account of the troublesome nature of the process by which it is prepared—to wit, by passing chlorine at high temperatures over a mixture of aluminium and charcoal. By placing the anhydrous chloride of aluminium in water it is of course converted into hydrated chloride.

The most economical process for the preparation of the hydrated chloride of aluminium appears to be by double decomposition between sulphate of alumina and chloride of calcium (both of which are cheap commercial products). When solutions of these two salts are mixed together, sulphate of lime is formed and appears as a precipitate, whilst the hydrated chloride of aluminium remains dissolved.

On allowing the aqueous solution to evaporate at a very gentle heat and afterwards cooling, crystals of hydrated chloride are produced. If an attempt be made to drive off the water from the hydrated chloride by the application of heat, decomposition will take place. Hydrochloric acid is evolved under these conditions, and oxy-chloride of aluminium is formed, and, by pushing the process, alumina is obtained as the ultimate fixed product.

GOOD-SERVICE PENSIONS IN THE NAVY.

BY the death of Inspector-General Dr. John Wilson, the Admiralty have it in their power to do something towards restoring the confidence of the profession in the Navy, by conferring the vacant good-service pension of £100 a year on some other retired officer of the same rank.

We hope this will be done in justice to the branch of the service in which there are several causes of dissatisfaction; the higher posts have become fewer, so that promotion into them will be less attainable. In the last distribution of Greenwich Hospital pensions the Inspectors-General were altogether omitted, and a sinecure was made for an admiral. In the late scheme for promotion and retirement nothing was done to induce the upper grades of the profession to retire, and staff-surgeons were retired on a maximum pension of £50 a year less than engineers and paymasters; and, besides, several cases of harsh treatment of individuals have occurred of late.

Of the good-service pensions to inspectors, there have been three since 1862, and in the Navy List of July, 1869, these were increased to six, which seemed to be but a tardy restitution of what was withheld when the Greenwich Hospital pensions were made up, omitting the rank of Inspector-General. Since then, a vacancy caused by the death of Dr. Stewart has not been filled up, and we hear that the vacancy caused by Dr. Wilson's death is likely to remain unoccupied. If it be so, an injury will, we think, be done to the service, in which the hope of reward and the certainty of decent retirement are not equal to those of the Army and Indian Services. The results are strongly marked in the great difficulty in getting candidates to fill the vacancies of assistant-surgeons. The inequality of supply to demand must continue so long as young medical men do not see better prospective chances in the Navy, where the prizes to be obtained are not at all in proportion to the risks to be encountered.

CARDED OAKUM AS A SURGICAL DRESSING IN WAR.

So many advantages are possessed by carded oakum as a surgical dressing that we expect it to be largely employed in the military hospitals of France and Germany during the present war. As, however, its qualities are not yet so widely known as they should be, it may be useful at the present juncture to refer to them. The material is simply old rope shredded in prisons and workhouses, and carded by machinery. It is of a bright-brown colour, with the well-known tarry fragrance. A little of the oakum is roughly drawn into a suitable shape for covering the wound, then wetted, and applied to it. All discharge is absorbed by the dressing, and any bad odour is effectually destroyed. By dipping it into hot water, and covering it with oil-silk, a convenient antiseptic poultice is formed, easily made, very light, and answering perfectly its purpose. It thus supersedes the use of lint, ointments, and linseed-meal or bread poultices. It is easily burnt—no small advantage in a crowded hospital, where bad-smelling applications are a fertile source of disease if not quickly destroyed. Its simplicity of application saves much time and labour—a great consideration where the nursing staff is overtaxed, as must always happen after serious engagements. Its cheapness is another great advantage. Carded oakum can be procured, we believe, for something like ninepence a pound, about a fifth or a sixth of the cost of lint.

In America, during the civil war, carded oakum was largely employed. It has also been in use for some years at the Children's Hospital in Great Ormond-street, and at St. George's during the last twelvemonth its use has superseded other dressings in the hands of several members of the surgical staff. Mr. T. Westhorp manufactures the machine-picked oakum at the Falcon Works, West India-road.

CHEMISTS, MIDWIFERY, AND PRACTITIONERS.

THE following verdict has been returned in regard to the death of a poor woman in Wellington, Somerset, who died after premature confinement of a still-born child, which was put into the water-closet, "That Mary Penney died suddenly on the 20th of July, but from what cause sufficient evidence doth not appear unto the jurors." We cannot pretend to clear up the cause of death. The woman had been attending to a lady with small-pox; she had intense headache and fever, and after her confinement a great deal of hæmorrhage. But there are a few points to which we do wish to direct attention. First, the accoucheur was a chemist, who advertises boldly in the local paper as "Frederick Selby Bettle, Dispensing Chemist and Accoucheur"! Finding the case complicated with symptoms of illness, he leaves, and requests that Mr. Bridge, M.D. Erlangen, should be sent for, who went to see the patient, but did not understand her

appearances. He then, according to the chemist's account, called on the latter, and advised him "to go up again and confine the woman." According to Mr. Bridge's statement, he promised to call on the chemist, and direct him to bring the saline powders, saying, "All you can do is to continue the saline powders, and then in the morning you will see what the fever is." On the same evening (Tuesday) Mr. Bridge called on the chemist, and inquired after the patient, and was told that she was confined and feeling comfortable. Next morning the husband of the deceased saw Mr. Bridge coming out of a patient's house, and fetched him. The patient was rapidly sinking, and died in a few minutes. The inquest was necessitated by rumours of poison, &c. Mr. Bridge told the coroner he did not think anything would be gained by having the contents of the stomach examined. He could not tell the cause of death.

Certainly the cause of death is somewhat obscure. Whether it was latent small-pox, or hæmorrhage, or something else, must remain very doubtful. We cannot but severely blame a practitioner who will go on conferring with a chemist about so grave a case as this, advising him either to give salines, or "confine the woman." The presumption of a chemist who undertakes to attend midwifery is great indeed. But it is difficult to understand, and impossible to justify, the conduct of a practitioner who leaves a fellow-creature with "appearances which he does not understand," but about to abort, in the hands of a chemist. Mr. Bridge should have either declined attending in connexion with the chemist, or have taken the case entirely into his own care. It is to be hoped that ere another Medical Bill pass, it will be made as penal for a chemist to assume the title of "accoucheur" as any other medical title. But in the meantime let medical men consider what is due to human life and their own dignity.

"HOSPITAL SUNDAY" FOR THE WAR.

HAPPILY removed from participation in the terrible struggle now waging on the continent, we have ample scope for reflection on the sufferings and misery which war entails, and from such reflection arises a strong desire to do our parts towards the relief of the sick and wounded who are now reckoned by thousands in the two contending armies. We venture to urge that a plan we have advocated for the support of our medical charities at home should be tried for the benefit of the great medical needs of the stricken soldiers of France and Germany. Why should there not be a grand demonstration of the nation's profound pity for the victims of war? Putting aside the moral effect of a whole people moved, as it were, by one common impulse of humanity, the substantial result of a Hospital Sunday for the sick and wounded would be the provision of means for diminishing suffering that would be felt as an enormous relief to the strain now pressing upon the responsible medical officers of both armies in the field.

RELIEVING OFFICERS AND MEDICAL MEN.

A JURY at Plymouth has censured a relieving officer for not supplying a destitute woman with the necessaries which had been recommended by the medical officer. The case is an illustration of our wretched want of system in the administration of the Poor Law. The woman was sufficiently destitute to receive an order for medical relief, but when nourishing food, care, and suitable clothes were recommended as the most fitting remedies, the relieving officer excused the refusal by stating that the husband ought to supply them out of his earnings, which were available to the extent of 8s. per week for the support of the patient and her young family. It is time that some attempt was made to define the respective duties of relieving officers and medical men in such cases. It is monstrous that the lives of sick paupers should remain at the mercy of men whose whole life is spent in cutting down relief. They should be instructed to pay proper respect to the recommendations made by the medical officers, who really cannot save life by the mere exhibition of physic. The cases ought to reported to the guardians, and the responsibility left with them of refusing to listen to advice. There are sufficient remedies for imposture and abuse. The law punishes sufficiently where there is misappropriation of income and obvious neglect, and the guardians can insist on giving assistance only in the workhouse. The relieving officer should, therefore, be bound to supply what the medical officer considers to be imperatively required, and leave to the guardians the responsibility of subsequent interference.

THE MEDICAL ARRANGEMENTS IN ST. PANCRAS.

THERE is a great division of opinion among the guardians of St. Pancras as to whether the district medical officers shall be allowed to continue in private practice. The Committee, after conferring with Dr. Bridges, have rejected his proposal to retain the services of the present medical officers, and to increase the number from six to eight, in accordance with what we believe to be consistent with the best interests of all parties, and in harmony with the general arrangements which have been sanctioned in Bethnal-green and other districts. A minority of five members of the Committee have entered a protest against the proposal which was adopted—viz., to dismiss the present officers, and elect four medical men who shall devote themselves exclusively to the service of the paupers. The minority will lay the protest before the Poor-law Board, and request that the former plan may be enforced.

Such exhibitions do not tend to the credit of the Poor-law administration. The principle upon which such appointments are made should be settled by the Poor-law Board, and not left to form the subject of squabbles amongst the guardians. They must be particularly painful to the medical inspector, who, if right, should be supported by the authority of the Poor-law Board, which is sufficient in this case to settle the whole question.

SKIN-GRAFTING.

WE have already referred at some length (THE LANCET, July 9th, 1870) to the interesting experiments which are being carried out at St. George's Hospital by Mr. George Pollock in reference to the process introduced by M. Reverdin, of promoting the healing of ulcerated surfaces by grafting upon them small pieces of healthy epidermis. On Tuesday last we saw Mr. Francis Mason at the Westminster Hospital attempt an adaptation of the process to a recent raw surface. The patient was a young woman whose chin and lower lip were drawn down by strong bands of cicatrix from an extensive burn, producing a terrible and increasing deformity. The plan of operation adopted was a combination of the old one by division of cicatrix with the novel feature devised by M. Reverdin. By division of some strong bands and dissection of adherent integument the skin about the lower part of the face and upper part of the throat was released, at the expense of two large raw surfaces which were now left lower down. It was upon these that Mr. Mason next proceeded to engraft six or eight pieces of skin, which he snipped off the lax abdominal tegument. They were not bigger than the half of a small pea, and they were planted by simply laying them on the raw surface and retaining them in position by transparent plaster. The hope

is that these patches of skin may form centres from which integumentary growth may spread in every direction, and thus materially diminish the time which would otherwise be required for the healing of such large surfaces by unaided granulation. Success has attended the process as performed upon old granulating surfaces; it remains to be seen whether a similar result will obtain where, as in this instance, the surface which receives the grafted skin is a raw one recently exposed by dissection. We shall watch this interesting case, and report its progress on a future occasion.

ENGLISH SURGEONS AND THE WAR.

THE general public can hardly attempt to realise, though members of the medical profession can, what is implied in the words "forty or fifty thousand dead and wounded men." We may dismiss altogether the circumstances that have led to the existing war; but we cannot close our eyes to the misery and suffering which it has entailed. With such enormous armies in the field, it is utterly impossible for the regular medical staff to meet the requirements of the wounded; and, even with all the aid of the surgical and nursing staff at present with the belligerents, it cannot but happen that many and many a wounded man's life will ooze out through a bleeding wound, and that much needless physical suffering will have to be undergone because unaided by timely succour. When the wounded have been removed from the battle-field, and become located in field hospitals and villages, what an enormous staff of surgeons, dressers, and nurses will be required! It would seem to be next to impossible to attend to the wants of the sufferers, and supply all the surgical skill and foresight which thousands of cases will demand, unless the belligerents largely supplement their medical services by volunteers from other nations. The Germans, being so far the victors, have had the number of their wounded vastly augmented by those of the enemy that have fallen into their hands or been left on the field or line of retreat. We would, therefore, strongly urge that the belligerent powers should accept the services of all British surgeons that choose to volunteer, whether they can speak German or French or not. There will, of course, be many who can do so, and these may aid those who cannot; and, to the credit of the Germans be it said, so many of their officers speak English that there would be no difficulty in finding work for all British surgeons who might desire to go.

We regret that the Committee for Aiding the Sick and Wounded have refused the voluntary assistance of many well-qualified members of the profession, simply because they are unacquainted with the language of either of the combatants. The language of pain is not difficult to interpret, and there are few situations in which energetic men, anxious to render real service, would not be able to render skilful service. The case is exceptional, and demands exceptional treatment.

THE HOUSING OF LONDON WORKMEN.

DR. WHITMORE, the health officer of Marylebone, in his report for the year 1869, after alluding to the nature, extent, and results of the sanitary work done in the parish, observes that the one great obstacle to sanitary improvement, and which renders it well-nigh hopeless to effect any reduction in the death-rate, is the want of proper house accommodation for the labouring poor. In this respect, he says, matters are year by year getting worse; the poor are increasing, but there is no corresponding increase in the class of houses appropriate to their means; in fact, the tendency of modern improvements is to diminish the number of such houses. The powers conferred on local authorities by recent sanitary enactments are excellent in their way, and if put in operation would soon lessen the number of unhealthy dwellings; but where are the inhabitants of the latter to find shelter? Humanity forbids that they should be turned into the streets, and the common effect of pulling down one set of wretched tenements is to drive the unfortunate occupants into others already overcrowded. Clearly this is but a doubtful benefit; and Dr. Whitmore does well to urge that until a strenuous effort is made to provide on a large scale healthy homes for the industrious London workmen, it is simply begging the question for the metropolis to plume herself on increasing architectural beauties, or on the fact that her death-rate is so much less than formerly.

THE MASSACRE IN CHINA.

THE last mail brings us a communication from a medical officer at Hong Kong, which gives some information concerning the recent massacres. He states that on the 5th of July news was received from Tiensin to the effect that the French Consul, some sisters of mercy, and several Europeans had been murdered, and the Consulate and the Roman Catholic cathedral burned. The French residents are much excited by this intelligence, and an order has appeared for 300 of the 29th Madras N.I., 200 of the 75th Regiment, 40 gunners of the Royal Artillery, and 40 gun Lascars, with two medical officers, to hold themselves in readiness to proceed at a few hours' notice to Shanghae or elsewhere. There was at one time a report that the Pekin Legation had been attacked, but this has not been confirmed. Shanghae is at this time of the year considered to be unhealthy, and it is therefore unlikely that the Lieutenant-Governor at Hong Kong will send on the force unless urgently requested to do so by the French authorities.

ASPHALTE PAVEMENT.

IF the casual traveller in a cab or omnibus experiences relief as he passes over the new asphalte pavement which has recently been put down in Holborn, how great must be that of the resident hard by. For years past his voice has been drowned by the perpetual noise, and his rest at night disturbed by a continual roar which worried his nervous system, if it did not absolutely prevent sleep. His lungs have been poisoned by clouds of ammoniacal dust, and his clothes and furniture have been destroyed by dirt, which penetrated whether he would or not. Suddenly all has been changed. He can get a breath of purer air by opening his doors and windows, and yet be understood when he speaks. He need not be smothered with dust, and when he looks out of window he sees the horses relaxing in their efforts, because the draught of the load is lightened. Still more will the invalid feel the beneficial change. His auditory nerves will not be worried with the perpetual rumble, and the nervous irritability which is so easily produced by noise will pass away. Henceforth he will at all events enjoy the hope and possibility of rest.

The value of the new pavement is not to be measured only by its durability and cost. It will diminish the wear and tear of the human nervous system, which is not so durable as granite, nor so easily repaired as macadam.

A GOOD EXAMPLE.

THE manager of the Vaudeville Theatre announces that the company and all connected with the establishment have proffered their gratuitous services for a morning performance (to-day, Saturday), the proceeds of which are to go to the relief of sick and wounded soldiers of the French and German armies. This is very generous on the part of the *personnel*

of the Vaudeville, and we hope to see the managers of other theatres follow their example. Everyone knows what a part the theatre plays in French life; but there is no room for anything but sorrow and mourning in France now; gloom reigns in the capital where, but a little while ago, those in high places spoke of war with "lightness of heart." The tragical events of the real drama are too absorbing to allow the inhabitants to indulge in the excitement of fictitious woes. Our good wishes may attend the efforts of one side or the other, but the sacrifices and the sufferings undergone by both cannot fail to wring pity from the roughest hearts. The proprietors of the little homesteads and vineyards about Alsace and Lorraine are utterly ruined, their wives and families starving, and the dull and monotonous scenes of domestic peace have been replaced by others of terrible excitement and anguish.

THE DIAGNOSIS OF BABY-STARVING.

IT is quite necessary that medical men should have their suspicions aroused whenever they are called in to emaciated infants supposed to be suffering from infantile diarrhœa or dyspepsia; otherwise they may easily be made the tools of baby-farmers, and be induced to sign improper certificates of death. The truth will be discovered by inquiring into the parentage of the children, and the terms upon which they have been placed out to nurse. In infants suffering from insufficiency of food there is also an absence of any signs of mesenteric disease, whilst the exhibition of wholesome nourishment effects an immediate improvement in their state. In such cases medical men will do wisely to copy the sensible proceeding of Dr. Ferris, of Hillingdon, who informed the police of his suspicions, and recommended that the child should be immediately sent either to the mother or the workhouse. Unhappily the police refused to interfere, and the child died. It was subsequently proved by post-mortem examination that it had been starved, and the woman, who had farmed the child for three shillings per week, has been committed by the coroner for manslaughter.

DR. THUDICHUM AND NITROUS OXIDE.

DR. THUDICHUM is displeased that the medical journals do not accept his proposal to send off a thousand bottles of liquid nitrous oxide to the seat of war. Dr. Thudichum may be an excellent authority on some point of spectrum analysis, or as to the qualities of some obscure acid in the urine, but we venture to tell him again that to send a supply of iron bottles filled as he proposes would be utterly useless without sending administrators who are acquainted with their contents; and if the administrators should be forthcoming, we cannot see what objection there would be to arming them with other anæsthetics and anodynes.

THE LADIES' VICTORY.

THE President of the Poor-law Board has been happily attacked and vanquished. There were no wounds, no bloodshed. The assailants of the citadel of Red Tape were ladies, and the engines with which the fortress has been carried are humanity and love. Mr. Goschen acknowledges the unaffected desire of those who have addressed him to lend their personal aid and practical assistance in the great work of boarding out pauper children, and educating them, better than in workhouses, and more cheaply than in district schools. He states that it would be a loss to the public interest if means should not be found to utilise the services which so many persons are willing to place at the disposal of the authorities who have charge of the administration of the Poor Laws. Henceforth there is hope for other philanthropists who may wish to range themselves under the banner of the law, for Mr. Goschen is anxious that full and immediate advantage should be taken of the disposition manifested in so many quarters to lend a helping hand in the great work of educating and redeeming the vast number of poor orphan children committed to the charge of the public authorities. Are not there many ready also to lend a helping hand to the aged, the sick, and the destitute, and have not they also a claim to participate in the public administration of suitable relief?

PLAGUE IN SOUTH AMERICA.

A REPORT comes from Chili to the effect that an epidemic has appeared in that republic. The first symptoms are described as those of fever, followed on the second or third day by the outbreak of gangrenous spots on the face; then ulceration supervenes, especially about the nose and mouth, which fall off in pieces. We await a confirmation of this report with some degree of interest, for, in the absence of more purely medical details, we can only say that the symptoms would apparently correspond with the disease known as plague, which, under a variety of modifications, devastated Europe during the classical and middle ages, its last appearance having taken place, if we remember aright, at Bengasi, about ten years ago.

CERTIFIED CAUSES OF DEATH.

THERE is a statement in the last quarterly report of Mr. Liddle, the Whitechapel Medical Officer of Health, in reference to certificates of causes of death, concerning which it strikes us that there is something wrong somewhere. Mr. Liddle says that in Whitechapel during the last June quarter, eighteen deaths occurred the causes of which were registered as uncertified by a medical practitioner. Of these eighteen cases ten were recorded in the Spitalfields subdistrict, and upon inquiry it turned out that the certificates had been signed by a duly qualified medical practitioner, but had been ignored on the ground of informality, they not having been given in the precise form prescribed by the Registrar-General. This appears to us an extraordinary state of things. We believe that the alleged informality consists in nothing more than the adoption by some medical men of a form of certificate either approved by or suggested in this journal some time ago, to meet cases which were unprovided for in the Registrar-General's form—namely, where a medical man had been attending a patient, but, not being actually present at the death, was unable to say of his own knowledge what was the exact date and place of its occurrence, although he might have no doubt whatever as to the cause of death. The certificate therefore expresses the belief of the fact of death and of its cause, the latter being the essential point of medical information. It ought to be widely known that the Registrar-General has instructed his officers not to recognise such certificates. The policy of this official procedure appears to us open to criticism.

CO-OPERATION IN AID OF THE WOUNDED.

MISS CICELY COLLINSON HALL, in a letter to *The Times*, adopts for the aid of the wounded a suggestion we have often made for the furtherance of sanitary projects of every kind—the intercession of medical practitioners with their respective *clientèles*. The profession has much social power through the access it enjoys into so many households, and the confidence it commands from the public at large—power which can be utilised in a gentle yet most effective way for the promotion of charitable objects. Among these there is

none more urgent at the present moment than that of aid to the immediate sufferers from this terrible war; and in the course of a single round of visits the practitioner might set agoing an amount of philanthropic activity, in the way of providing rags even, which would be felt for good, and acknowledged with blessings in many a hamlet now saddening, with its population of sick and hurt, the beautiful slopes of the Rhineland. We might enforce our suggestion still further, but we are sure that it has been to a great extent anticipated by the enlightened and generous practitioners of England.

NAVAL PROMOTIONS.

WE are glad to see that a promotion has at last taken place among naval assistant-surgeons. The accession of ten to the list of assistant-surgeons has slightly brightened the path of the seniors, as it is at once followed by the promotion of as many to the rank of surgeon. We would look on this rather as a *post hoc* than as a *propter hoc*, because, with a list showing "passed" assistant-surgeons of above twelve years' standing, it would be disheartening to have this regarded by seniors as the future rule of action, and perhaps fatal to the hopes of young medical men not unwilling to enter if fair prospects of promotion were held out to them.

Even in this very small modicum of promotion after the dearth of two preceding years, it is painful to see passed over the names of excellent officers who have been, and are now, on foreign service, and who may still, for aught we know, be "acting-surgeons" in Her Majesty's ships. It may truly be said that such names are made the more conspicuous by their absence on such an occasion. We think that such pointed omissions demand explanation.

FRENCH ACCOUNT OF THE HUMANITY OF THE PRUSSIANS.

COUNT MELCHIOR DE VOGUÉ, a delegate of the Paris committee for help to the wounded, who was present at Strasburg, Haguenau, and Weissemburg, has written to the president of the committee a letter, wherein he speaks very highly of the treatment the French wounded experienced at the hands of the Prussians. He and some of his companions were surrounded by Baden troops at Haguenau, but they immediately obtained a pass for Strasburg. The French surgeons, busy in the hospitals at Haguenau, were left quite free and unmolested. The Prussians visited the wards to remove, as prisoners, the men who might feign wounds or disease, but did their duty with the utmost courtesy and consideration. Medical men, who had left Strasburg to tend the wounded after the battle of Weissemburg, were granted passes by the Crown Prince, though they had no official mission. The Prince had them conducted to the French outposts, and observed to them that the French wounded were attended to in the Prussian ambulances.

THE CHOLERA.

FROM the further news which has reached us concerning the outbreak of cholera at Taganrog, it would appear that the disease first showed itself there on the 19th of July, and from that date to the 26th there were 52 cases and 20 deaths. During the week following the 26th the mortality is reported to have averaged 14 daily. These statements must be taken with some reservation, as the local authorities are reticent as to the progress and extent of prevalence of the malady.

The outbreak at Taganrog must be looked upon as a recrudescence (if we may so phrase it) of the epidemic extension of cholera in Europe last year. During the past four years the disease has prevailed more or less in various parts of Northern Persia, and particularly in the district bordering upon the Caspian. In August, 1869, an outbreak occurred in Resht, and a little later the epidemic appeared at Astrabad. Steamers carrying passengers and goods run weekly from Astrabad to Astracan, calling at the port of Resht, Astara, Lenkoran, and Baku. In September cholera broke out at Nijni-Novgorod at the time of the great fair, when numerous Persian merchants had gathered together there. Later in the year the disease appeared at Kiev, Moscow, and other places in the interior of Russia.

It is to be feared that the outbreak at Taganrog will extend widely into the neighbouring districts, for it has occurred at a time when the inhabitants of these districts usually flock to the town to sell their produce.

TRADESMEN'S TRICKS.

THE recent reverses of the French arms are in some degree attributable to the fraudulent practices by which the Commissariat was robbed of its legitimate supplies, and the soldiers victualled on meat most deficient in quantity, and putrid or otherwise objectionable in quality. Concurrently with these disgraceful disclosures we have in London some sixty-four "rascally tradesmen" convicted of using false weights and measures, and fined in sums amounting in all to £77 15s. This offence, which is only second to that of adulterating the food thus knavishly vended, is one which calls for summary chastisement; and we trust that no misplaced leniency on the part of those in authority will interpose between the culprits and the utmost rigour of the law. We should gladly see a Commission of Inquiry into the weights and measures of the metropolis rewarded by the same salutary results which followed our investigations into the adulteration of food.

PERMANENT APPOINTMENT OF POOR-LAW MEDICAL OFFICERS.

A GENERAL order has been issued by the Poor-law Board to a considerable number of parishes and townships, which provides that all appointments of medical officers made after the 29th of September next will be permanent, and subject to the same conditions as those which have been in operation in unions since 1857. We observe that the principal metropolitan parishes are included in the schedule, as also are Birmingham, Manchester, Hull, Coventry, Yarmouth, and other large provincial towns. On behalf of the profession, we beg leave to express our acknowledgments to Mr. Goschen for this great boon.

BRIGHTON DRAINAGE.

THE first meeting of the Brighton Intercepting and Outfall Sewers Board, under the new Act, was held last week, when Mr. Alderman Hallett was elected chairman, and, after the usual formal proceedings, a Committee for general purposes was appointed. Mr. Hawkshaw has been invited to meet the Board on an early day, to confer as to future operations, and we may now hope that his designs will be promptly carried out.

HOSPITAL ARRANGEMENTS IN SAXONY.

THE authorities at Dresden have decided to prepare 5000 beds for the wounded in scattered hospitals. This number is to be divided as follows:—Dresden, 2000; Leipzig, 1200; Zittau, 700; Bautzen, 300; Grossenhain, 300; Chemnitz, 300; Wurzen, 200. In Schneeberg and Marienberg convalescent homes, each for 100 men, will be established. The American plan of barrack hospitals will be adopted in Leipzig; 700 beds being thus obtained.

SCARLET FEVER appears by the returns to be on the increase in London, the deaths having gradually risen during the last four weeks. It continues to be most fatal in the western districts.

MR. R. BRUDENELL CARTER F.R.C.S., has been appointed Ophthalmic Surgeon to and Lecturer on Ophthalmology at St. George's Hospital.

THE Worship-street police magistrate has expressed a strong condemnation of the way in which the new Columbia Market at Bethnal-green is managed as regards the sale of unwholesome articles of food. In a case brought before him by Dr. Sarvis, the district health officer, referring to unwholesome fish, the magistrate plainly said there was connivance between the fish inspector (a City official) and the salesman.

THE German Hospital at Dalston has just received the munificent gift of £10,000 from a German nobleman, Baron Friedrich von Diergardt, as a memorial of his late parents, who had always taken a great interest in the hospital.

A MEETING of the trustees of Anderson's University has been held in Glasgow to elect a professor of Scientific Chemistry, this chair being vacant in consequence of the death of Dr. Penny. Mr. Young, the president, occupied the chair. Four candidates were nominated, and, on the vote by ballot being taken, Dr. T. E. Thorpe, Owens College, Manchester, was declared duly elected by a majority.

THE Privy Council has awarded the sum of £45 4s. to Dr. Yarrow, public vaccinator of St. Luke's, for excellence of vaccination. The sum of £46 has also been awarded to Mr. J. A. Angus, of Newcastle-on-Tyne, for efficiency in the same branch of practice.

THE new law on Life Assurance passed in the last session will be a great boon to the provident public, inasmuch as its object is to protect them against "bubble" companies, and to give them the means of ascertaining the financial position of the offices whose policies they hold.

A COTTAGE HOSPITAL was opened at Stanley, near Wakefield, on Wednesday last, completely furnished for five beds. The district is one where accidents frequently happen, and the institution will be a great benefit to the inhabitants. £60 a year has been guaranteed for its support. At the opening ceremony addresses were given by Dr. Crichton Browne and Mr. Lawson Tait.

THE Liverpool School of Science has had a most successful session, and the prizes will be distributed by Professor Huxley at the forthcoming meeting of the British Association.

WAR NOTES.

A FEW weeks ago, and the beautiful landscape of the Rhineland, with its towns, vineyards, and homesteads, was all sunshine and peace. What a transformation has taken place! The march of events has led onwards from the frontier land, and inwards into the heart of France, and the different stages have been marked by sanguinary struggles between the belligerent armies. We have hastily thrown together a few fragmentary notes, from information supplied by different correspondents and other sources.

The losses on both sides have been terrible, and no struggle since the American War has been attended with such lists of killed and wounded. The carnage on the 18th instant at Metz is said to have been unparalleled in the annals of war. The absolute and relative numbers of those killed and wounded in some of the engagements have been such that an ambulance *personnel*, to be adequately effective, would require to be almost as numerous as the army to which it belongs. The large number of wounds of the head and upper extremities among the French has been the subject of remark. This is explained by the mode in which the Prussian soldier fires from the hip. French medical administration in the field has not shown itself to advantage. We hear sad stories of the want of doctors, of the absence of surgical appliances, and the insufficiency, as well as inefficiency, of their ambulance system. At Metz every place is filled with the wounded,—the barracks, the hospitals, the Jesuit seminary, and private dwelling-houses; and what is said of Metz applies equally to every town and village sufficiently near to the scenes of action to receive the victims. The heat is great, but fortunately, with the exception of some short but heavy showers, there does not seem to have been much rain, and the wounded exposed at night on the field have been in this respect spared a good deal of suffering. Wherever the wounded, however, have been exposed to a heavy rain, its effect upon their condition has been very unfavourable. From the decomposition of the heap of organic matter left on the battle-fields the stench is already said to have become pestiferous; and with the accumulation of wounded men which must necessarily take place, it can scarcely fail to be attended with disastrous results to a large number. Hitherto we have heard nothing of the amount of sickness in the armies. Diarrhœa, dysentery, and fever, which have always been the scourges of armies in the field, doubtless prevail to some extent, but they evidently do not exist in an epidemic form. If the war be prolonged for many weeks, or even days, however, we may certainly expect to hear of a great increase of sickness, if not of the advent of a grave epidemic. It is estimated that the losses on the two sides in the different actions amount in the aggregate to between 150,000 and 200,000 men. The Prussian system of organisation is based upon the assumption that every regiment will, during a campaign, lose at the rate of 40 per cent. of its strength per annum. Their regiments consist of four battalions each, three of which are present in the field, and one forms the depôt from which the reliefs come. The organisation by which the streams of reserves have been kept flowing to the front, and that by which the supply of food has been maintained, and the amount of ammunition has been made equal to the demands during the rapid succession of battles that ensued in a few days—all fought in an enemy's country, and more than sixty miles from the base of operations—speak volumes for the *Geist* of the Teutons. All the health-resorts of English invalids and tourists about the Rhine are now filled with maimed Prussian and French soldiers. At Coblentz, Cologne, Wiesbaden, Frankfort, Darmstadt, and other places, there are hosts of wounded men. From Bonn we learn that there are upwards of 600 in hospital, but there does not appear to be uninterrupted railway communication with the fields on which so many thousands must be lying. The most extensive hospital accommodation has been provided in Saxony, and scattered hospitals have been extemporised throughout the country. In the Bohemian war the same thing happened as on the present occasion: the greater number of the sick and wounded were located in places never destined for hospital purposes, and tents or sheds were used in combination with these buildings. No opportunity was afforded for comparing the results obtained in large and small hospitals, in consequence of the removal of the wounded from the hospitals near the field to others in Prussia. The large permanent hospitals, moreover, only received the severely wounded as they were recovering, for the cases of amputations and resections that could not be transported easily remained in Bohemia, Saxony, and the frontier places of Silesia. When the authorities of Leipsic required a new hospital to be erected, all the leading men advocated the "baracke"

principle, and Mr. F. Friedrich went to Berlin and Greifswald to inspect the working of the hospitals, with the view of obtaining the comparative merits of the solid and "baracke" structures. His report was most favourable to the latter; and the Leipsic authorities sanctioned plans for building four isolated and ten connected "barackes." Each "baracke" costs £1200, and is capable of holding twenty-four beds. By this time large numbers of men capable of undergoing the journey have been removed to other places distant from the scene of action,—such as the towns of Hanover, Saxony, and other parts of the North German Confederation. The hamlet of Spicheren, being so close to one of the battle-fields, contains a large number of wounded. At this little place a difficulty connected with the Geneva Convention became evident. It is asserted that some members of the French Sanitary Corps, after having busied themselves about the wrecks of their regiments, demanded, on the ground of the Geneva Convention, permission to remove the lightly wounded to their army. It was considered that it would never do to have allowed this, after these officers had been two days in the midst of the Germans, and seen the disposition of their troops. A revision, however, of the Geneva Convention will set this right.

According to a German student who passed a short time at Ganstelt after the affair at Woerth, the wounded brought in from the battle-field were placed in sheds, chambers, and stables upon straw. By about mid-day all except 28 of the 300 wounded were removed in waggons, and the student, in company with another, passed the night with the 28 severely wounded men in a mill, where everything but fresh water was wanting. At Durenbach all the wounded men were French except four Prussians. Two Swiss medical men had charge of 70 wounded. From Durenbach his march lay along the track of the battle-fields of Woerth and Freichswiller to Reichsofen. In every village lie wounded men in masses, but well cared for, and removed as soon as possible.

A correspondent, who visited one of the hospitals in the neighbourhood of Woerth, says that the cases he saw were mainly those of gunshot wounds of the lower extremities produced by the chassepot or needle-gun. There did not appear to be any great difference in the character of the injuries made by the two weapons. The bullet of the mitrailleuse is of greater length than the other projectiles, and it is of the same size throughout, except where rounded off at the top. The wounds caused by it were relatively larger, but there were no such differences between the injuries caused by the various projectiles as might have been imagined. Some observers, on the other hand, declare that the bullet of the needle-gun made an uglier wound than that of the chassepot, and that the bolts of the mitrailleuse were very mangling. Very much would depend upon the momentum of the projectile, and the resistance which the structures offered to its passage. Gunshot fractures of the lower extremity were all put up in starch on the second day, with an aperture left over the wound for the purpose of cleanliness and dressing. Fractures of the upper extremity were not reduced until the swelling had subsided; and, in order to accelerate this process, ice-bags were continuously applied. Wounds involving soft parts only had raw scraped lint applied to them fastened on by adhesive plaster or bandage. Carbolic acid was not used; indeed, considering the time and extreme care that its application requires, we do not see how it could be employed in military field surgery. Starch and plaster-of-Paris appear to be, in a great measure, substituted for splints.

At many places churches have been utilised for the reception of surgical cases. Wherever one goes a red cross on a white ground meets the eye, the sad sign of that anguish which must follow the strife, albeit that it is the emblem of mercy and humanity towards the disabled which it protects. There is nothing that seems to give the soldiers so much solace in their hardships and privations as tobacco, and, by the Germans in particular, the gift of a bundle of cigars is welcomed as a priceless boon.

The sisters of mercy and the volunteer nurses have been unremitting in their efforts to relieve the wounded, and they have unquestionably performed great services and made great sacrifices in the cause of humanity. As the wounded come in from the carts and waggons with only provisional bandages, their most pressing necessities are relieved, a few kind words are whispered, water is supplied them, the beds are made ready, and the sufferers are put upon them until they can be attended to.

There must of necessity be a large amount of suffering from want of timely aid, and it seems to us that the French and German authorities will, if they are wise, accept the services of every individual who can bring any surgical knowledge or skill to the work. The merely manual labours which every medical student or hospital dresser could discharge would be of immense service in the presence of such an enormous mass of wounded.

SIR JOHN GRAY'S RETURNS FROM THE LICENSING BODIES.

OUR readers are aware that Sir John Gray moved in the House of Commons for returns from each of the licensing bodies named in the schedule of the Medical Act, 1858, showing as respects each licensing body—

1. The number of each kind of licence, diploma, degree, or certificate entitling the holder to be placed on the Register of qualified practitioners granted during each of the years 1865 to 1869 inclusive, distinguishing between qualifications in medicine, in surgery, and in medicine and surgery.

2. The amount of the fee paid for each kind of licence, diploma, degree, or other qualification which entitles the holder to be registered under the Medical Act.

3. The number of years during which the candidate for each class of qualifications is required to be engaged in studying the profession, stating how many months he is required to be in attendance at hospital.

4. The number of years, or months, during which each candidate is required to have been engaged in the practical work of a medical or surgical hospital as dresser, clinical clerk, or pupil, having the actual charge of patients under the medical or surgical officer of the institution, stating the dates at which such practical hospital work was declared to be a requisite qualification for a candidate for a licence to practise.

5. Is the candidate for any, and if for any for which, of the qualifications to demonstrate at the bedside of a patient that he has acquired a practical acquaintance with disease? giving the date at which such rule was adopted, and the date since which it has been operative.

We shall not give all the information of these returns. Much of it would not be new to our readers, and may be found in our Student's Number. But we will give some idea of the facts now placed officially before Parliament. First, as regards

THE DEGREE OF M.D.

The returns show that there is every variety in the conditions, whether of price or examination, on which the degree of Doctor can be obtained. What strikes us much is the small number of persons in a year who take this degree; and, of this small number, the large proportion which takes it from one of the universities, and that an Irish one, the Queen's. Take for example the year 1869. The degree of Doctor was granted by the University of Cambridge to only 4 persons, by the University of London to 10, by that of Aberdeen to 7, Edinburgh to 25, Glasgow to 9, St. Andrews to 10, the University of Dublin to 4, and by the Queen's University in Ireland to 51.

There is as much variety in the price of degrees as in the number of them granted by different universities. The fee for the degree of M.D. in the University of Dublin is £101 4s. (including the Arts degree); the fee for the same degree in the Queen's University is £5. The coincidence of the lowness of the price of the Queen's degree and the great demand for it is, to say the least, very striking. There is every intermediate price. The fee for the degree in Cambridge is £31 13s.; in the University of London £22; in Aberdeen 20 guineas; in Edinburgh, under old regulations, £25; under new, 20 guineas, and stamp duty, £10. In Glasgow, for M.D., £25 8s. was paid by candidates whose studies commenced previous to the introduction of the

regulations following upon the Universities Act (Scotland) 1858, and £15 8s. by candidates who commenced their studies after that time; the amount in both cases including £10 stamp duty. The fee for the degree of M.D. at St. Andrews is the respectable sum of £52 10s.

As to varieties in the other conditions, such as courses of study, the amount of practical work which the candidate is required to show that he has done, the amount of hospital practice, and the test of bedside examinations, many particulars are given. But, after all, these returns do not enable us to judge at all accurately of the value of any particular examination. Their chief value is in showing us which are the licensing bodies that give the greatest number of licences, and in enabling us to judge roughly of the conditions on which they grant them. We have seen that there are but few of the highest class of medical degrees granted in the course of the year.

Before placing before our readers the returns of the principal licensing bodies, let us say a few words on the

DEGREE OF M.B.

Cambridge gave this title, in 1869, to only 3 persons; London to 17 (the smallest number for this university in the five years included in the returns); Oxford, which gives only this degree, gave it to 2 persons; Aberdeen to 7, the double degree of M.B. and C.M. to 23; Edinburgh gave the single degree to 5 persons, the double to 39; Glasgow to 38; and Dublin to 41 persons; the fee in Dublin is £99 4s.

We come now to

THE PRINCIPAL LICENSING BODIES.

Under the Act of 1858 the universities are licensing bodies. We shall first, however, give some idea of the numbers of the diplomas of the chief examining bodies in the three divisions of the kingdom.

The Royal College of Physicians of London gave its licence—which, by the way, it describes as a qualification in medicine and surgery—in 1865 and the following years, to 75, 60, 68, 80, 69. The fee is £15 15s. *The College examines candidates at the bedside.*

The Royal College of Surgeons of England gave the diploma of Member in 1865 to 364, in 1866 to 337, in 1867 to 353, in 1868 to 341, and in 1869 to 257. So that in 1869 the College gave 107 diplomas less than in 1865. The diploma of Fellow by Examination was given in 1865 and the subsequent years to 23, 17, 24, 31, and 35. The licence in Midwifery to 45, 42, 37, 26, and 17. The total number of qualifications given by the College in the five years, 1865 and following, was 454, 410, 422, 411, and 319. The qualifications granted in 1869 were fewer than those granted in 1865 by 135. The fees for the diploma of Member are £21; for the licence in Midwifery to qualified persons, £3 3s.; to unqualified persons, £10 10s. Evidence of six months' dressership is required of candidates for the Membership. *There is no practical or clinical examination of candidates for the Membership or for the licence in Midwifery; but there will be for the Membership after March 31st, 1871.*

The Society of Apothecaries of the City of London granted its qualification in medicine in the year 1865 to 261; in 1866 to 232; in 1867 to 254; in 1868 to 284; and in 1869 to 275. The fee for each certificate is £6 6s. After the 1st of July candidates will be required to produce evidence of having served as clinical clerks at a recognised hospital during six weeks. *Since 1867 candidates have been examined at the Hall clinically, the patients being brought from the various hospitals and dispensaries.*

The Royal College of Physicians, Edinburgh, conferred its licence in 1865 and the following years on 131, 125, 140, 126, 127. But the College confers, with the College of Surgeons, or with the Glasgow Faculty, a double licence, which is a complete qualification. And it gave, in addition to the above, its licence in the double form, jointly with the College of Surgeons, in these years, to 70, 76, 102, 74, 85; with the Glasgow Faculty, to 12, 20, 28, 18, and 28. The total of the licences granted by this College, single or double, was 213, 221, 270, 218, 240. The cost of the double qualification is £16, or £5 less than is paid for the single qualification of the English College of Surgeons. Since 1859 evidence of certain practical work has been required of candidates, such as that they have attended the practice of a dispensary, or acted as clerks or dressers in a hospital, or assistants to qualified practitioners; that they have attended six cases of labour, and have studied vaccination under a recognised teacher. *They are examined clinically in the wards of a hospital.*

The Royal College of Surgeons, Edinburgh, conferred its licence in 1865 and the following years on 125, 119, 148, 114, 122. Fellows are elected by ballot without examination. The fee for the licence is £10, except when candidates take the double licence referred to above, in which case the fee to the College is £8. The College desires to be practical in exacting evidence of actual work, but cannot insist on dresserships or clerkships, as these appointments in the Edinburgh Infirmary are limited in number. *Since 1867 candidates are examined clinically in the surgical wards of the hospital.*

The Faculty of Physicians and Surgeons of Glasgow granted the following number of licences in 1865 and the following years—74, 52, 57, 54, 54. The fee is £10, or £8 when granted jointly with the Edinburgh College of Physicians. The fee for the Fellowship is—resident, £50; non-resident, £25. No additional study is required from candidates for the Fellowship. Candidates are not required to have been dressers, clerks, or pupils. *They are examined clinically in the hospital.*

(To be concluded.)

LORD DERBY ON MEDICAL CHARITIES AND SANITARY REFORM.

IN laying the foundation-stone of the new borough hospital of Bootle, near Liverpool, the Earl of Derby remarked that the relief of sickness, when the sick person is unable to pay for himself, stands on precisely the same footing as the relief of destitution; that a hospital-rate would not be less justifiable than a poor-rate or an education-rate; and that it was quite possible that society, whose tendency, right or wrong, seems at present to be in the direction of increasing rather than restricting the functions of the State, may look at the matter in that light, and make the care of the destitute sick a public charge. After saying that the subject was at present in private hands, and that sufficient funds would no doubt be raised, he stated that he hoped they would not consider the whole of their duty done. "It is infinitely better," said he, "that there should be no people who stand in need of curing. Having your hospital, the next thing to try for is that it shall have nothing to do. We are far too apt, even in these days of supposed sanitary knowledge, to talk and think of disease as if it were a calamity inflicted upon us by the direct act of a higher power, and as if all we could do with regard to it were to observe some few well-known public precautions, and for the rest to wait, and only hope to mitigate its violence in individual cases. Now, I do not think it is any exaggeration to say that if you deduct from the total sum of disease at any one time existing in the country all that can be clearly and unmistakably traced to human and preventable causes, you would leave a comparatively small amount to be dealt with. Recollect, these are not matters in which any statistics can help you. You may be able to show that many people die from the effects of bad drainage in some particular place, or from the effects of drink or other vices; but no figures can give you the infinitely larger sum-total of strength broken down and constitutions ruined from the same causes—the number of instances in which no immediate result is seen to follow, but when some slight and casual attack of illness comes on, the man, previously weakened, has no power to resist it, and dies. Take, again, the innumerable instances of an entirely sedentary life without due air and bodily work on the one hand, or, on the other hand, where excessive exposure and physical fatigue have destroyed health and shortened existence. Take the overcrowding and foul air which so keep up the death-rate in our great towns. Look at all these things, and the more you look at them the more surely you will accept the conclusion that in sanitary matters at least the future of the world need not be like its past. Considering all these things, you will be at no loss to see what our business is, and to some extent to see how it is to be done.

We want here broad streets, good drainage, and plenty of light and air. But we want more. We want good and cleanly houses for our working men; we want baths and wash-houses; we want places of healthy exercise for those whose labour is sedentary; we want places of rest and harmless amusement for all when their labour is done. These things must be everybody's concern, and as Bootle is about the youngest borough in England, I hope it will do what youth always thinks it can do—show itself a deal wiser and more energetic than its elders. One thing we have to remember, that the true wealth of a State is not shown in the lists of its exports and imports, nor in a vast revenue easily raised, nor in its enormous yearly savings, of which our statistical writers boast. All these things are excellent in their way, but, excellent as they are, they are means, not ends, and the end of them all is that we should have living on this English soil a population, not squalid with dirt, not decimated by disease, but healthy in body and mind, trained for all needful purposes whether of peace or war, living in homes which make self-respect possible, and attached to a country which has done its duty towards them. My duty is discharged, and I declare the first stone of this building well and duly laid."

Correspondence.

"Audi alteram partem."

THE SICK CLUB SYSTEM.

To the Editor of THE LANCET.

SIR,—I beg to thank you for the prominence you have given to my letter on the sick club system, and for the remarks you have made on the subject.

Fear of taking up too much of your space prevented my alluding to provident dispensaries, and I am glad to find that the one at Rugeley, which was originated by my friend Dr. Monckton, is already regarded with so much favour as to be recommended as a model for others. This dispensary, to which I am one of the medical officers, takes in several of the surrounding rural parishes, including the one in which I reside, and is so valued by the working classes that in this one parish alone are more than 400 members. We have, therefore, adopted its rules for a medical club we have established in the other parishes that lie within our beat, but were too far distant to participate in the advantages of the dispensary at Rugeley.

I shall be happy to forward a copy of the rules to anyone who wishes for them, and I am sure that Mr. Crouch, secretary to the dispensary, Rugeley, will gladly give any information as to its working to anyone seeking it.

I may just say that the committee of gentlemen who manage the dispensary are desirous of confining its operations to the class of people for whom it is intended, and are always ready to investigate any case when it has come to their knowledge that a person whose circumstances should have prevented him has been inadvertently admitted.

I am, Sir, your obedient servant,

Great Haywood, Stafford, August 23rd, 1870. E. T. TYLECOTE, M.D.

THE NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I see by to-day's *Times* that the Admiralty have succeeded in filling *ten* out of the "at least *twenty-five* vacancies" that were announced to exist for assistant-surgeons in the above service.

That the naval medical service is exceedingly unpopular is admitted, even within the sound precincts of Somerset House; but the fact that only ten men could be obtained, when twenty-five were admitted to be wanted, at a time, too, when there are no vacancies in either the British or Indian army medical services, and when there are plenty of young surgeons wanting employment, incontestably shows that there must be something very "rotten in the state of Denmark."

It is to be hoped that this indication of the feeling of the profession will open the eyes of the authorities to the necessity of placing the naval assistant-surgeon on an equal footing with his brother in the army, and then there will be no lack of candidates, and the present "farce" of "qualifying" will become *virtually* a "competitive" examination.

The number of marks obtained have, on this occasion, also, for the first time been made public; and this shows, if reliance is to be placed on results, that the class of men entering the navy is decidedly inferior to those entering the sister service. In the present instance the highest number of marks obtained was 2435, the lowest 1325, the average of the 10 being 1780·5. It is not stated whether any candidates failed to qualify.

At the last examination for the Indian medical service in February, 23 men competed for 10 places, of whom 22 were reported qualified; the first man obtained 2640 marks, the tenth 1840, the average for the 10 being 2089·5, or rather more than 300 above the average of the Naval examination.

These are plain facts, but they show that the majority of young surgeons, in England at least, value their services at a somewhat higher estimate than that placed on them by the Admiralty.

On the other hand, I am in a position to state that if twenty places in the British or Indian army were to be offered in a month from a given date, at least double that number of men would be found ready and willing to compete for them.

I am, Sir, your obedient servant,

Shrewsbury, August 17th, 1870. ONE WHO IS WAITING.

PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE WAR.

THE recent hard and prolonged fighting which has taken place in the neighbourhood of Metz must needs have caused an enormous number of wounded in the French ranks; and yet one could not suppose so, judging from the limited number of wounded soldiers who have arrived here. Doubtless the larger number of sufferers have been provided for at Metz itself, and in the neighbouring towns. At Metz the military authorities have been powerfully aided by the municipality, who have organised a complete system of wooden huts, covering an extensive locality, and placed under the direction of the medical men of the town.

In order the better to co-ordinate their exertions, these medical men have elected as their chief M. Sonsard, ex-surgeon to the French hospitals, who, during the war in Italy, rendered eminent service in organising the large hospital at Brescia. The International Society of Paris has added its efforts to those of the local authorities, and has already despatched a considerable number of surgeons, assistant-surgeons, dressers, and nurses to Metz and its environs. The nurses and lady *infirmières* have been specially useful in tending and comforting the soldiers, and the help which has been afforded to the wounded by the female portion of the population must be noted as one of the distinctive features of this war.

The town of Epernay has also received a large number of wounded coming from the more recent affair at Gravelotte, Borny, &c. There, as on all the preceding occasions, it was remarked that almost all the injuries were situated in the lower extremities of the patients, on account of the peculiar mode of firing of the Prussians. Private charity has been active at Epernay, as elsewhere, in affording help to the victims of the war. Thus very many large proprietors in the neighbourhood have converted their châteaux and country seats into hospitals, so that the medical men are enabled to give the benefit of country air to the convalescent patients.

Notwithstanding all these combined efforts, however, there is a fearful lack of proper care, and especially of medical attendance. Very many of the wounded cannot be provided for, a fact which may be easily understood when the numerous and bloody combats of the last fortnight are con-

sidered. No one can scarcely be rendered responsible, therefore, for the comparative want of medical care, seeing the unexpected and extensive injuries which have been inflicted. The International Society has already sent off five complete ambulances, equipped and manned, as I informed you in my last, with as many as 100 surgeons and assistants to each ambulance. But it is calculated that each ambulance can afford immediate succour to only 1200 or 1500 sufferers after each battle. On the other hand, private charity has afforded an immense amount of available aid for the wounded; but then, as Nélaton stated at Nancy, where the beds and accommodation are ready, competent medical attendance is wanting; not through any lack of zeal or charitable feeling on the part of the profession, but through the insufficient supply of military surgeons or local practitioners.

Whilst recognising that, in a great measure, this lack of proper medical aid is due to the energetic and bloody character of the war, it must be stated that, on the other hand, numerous complaints are still made against the commissariat authorities, who are accused of showing too narrow, exclusive, and improvident a spirit. Thus it is contended that at the Val de Grâce of Paris all the military surgeons are still at their posts, whereas they could be easily substituted by the medical men of the city, and might thus be sent to the seat of war, and there render immense services. Not only have the army surgeons of the Val de Grâce not been called to the field, but the groups of wounded soldiers sent to Paris are accompanied, it is said, by assistant-surgeons, who remain at the Val de Grâce. As I before informed you, there are upwards of 1500 students, or medical men, who have registered their names at the Commissariat office as offering to take service in the active ambulances, and who have not yet been employed.

I mentioned at the beginning of this letter that the number of sufferers from the conflict who have until now arrived in Paris is comparatively few. At the Val de Grâce only about a hundred wounded may be reckoned; and, contrary to what has been asserted, there are no Prussians among them. Considerable preparations, however, are being carried on here for receiving large numbers of sufferers. M. Michel Lévy, the head of the medical staff of the army, has been going round all the military hospitals of Paris, in order to take proper measures for removing the slightly ill to more remote establishments, and thus afford accommodation for the forthcoming wounded. Thus the neighbouring departments of Orleans, Tours, Poitiers, Montargis, &c., will be utilised in that manner. A great number of public institutions are being converted into hospitals,—for instance, the lyceums or Government colleges. The inhabitants have also been zealous in offering their services. Many houses have offered to receive and take care of a certain number of wounded, according to their means and accommodation. Dr. Jules Guérin, the well-known Academician, has for his own part prepared ten beds in his private hotel near Notre Dame. On going through the streets of Paris you might notice, at frequent intervals, the presence of a white flag with a red cross, waving at the windows of private residences. This indicates that the house contains some wounded, and has therefore a right to be respected in any emergency. The Parisian medical men have also offered their services to attend gratuitously the sufferers thus received by private individuals, and have inscribed their names as of those ready to attend a summons to such patients within a given area.

All these means and measures intended for the care of the wounded are now being arranged and centralised in view of a possible siege of Paris, and through the industry of the local press, which has already done such good and Christian work in getting up a complete ambulance, by the aid of private subscription. The events of the last week have suggested the necessity of providing Paris with most complete medical assistance, in case a siege should have to be sustained. An appeal made by the *Gaulois* has been immediately answered by Ricord, who takes charge, as chief surgeon, of the formation of the Paris local ambulances and other sanitary arrangements. A numerous body of surgeons has already gathered around him. Two classes of ambulances will be provided: a class of sedentary ambulances, with the large School of the Ponts et Chaussées as head-quarters; and a class of flying ambulances, organised beforehand in the various quarters of the town, comprising brigades of medical men, dressers, &c. (according to the respective localities), and intended to be ready at hand for operating actively in any given spot. All the dressers will be volunteers, supplied probably by the sisters of mercy, and the other male or female convents of the city.

The Eastern Railway Company, which has almost all the wounded to convey, has provided a special set of waggons with the view of affording as much comfort as possible to the sufferers. The system which is said to have afforded the best results until now is that of hammocks suspended to moveable hooks attached to the walls. I am not aware that any special kind of vehicles has been prepared for conveying the wounded from the terminus to their various destinations, and, if I am not mistaken, this office is performed by ordinary cabs and omnibuses. There exists an agreement between certain contractors and the military authorities to that effect; but, in case of need, any amount of passing gigs or carts may be claimed by the Government.

The war has necessarily engendered a most bitter spirit between both armies, and, as you are aware, there have been mutual accusations and complaints going on with regard to firing upon the ambulances, &c. I really believe there is no foundation whatever for this report as regards either party. Accidents may have taken place, but there was no deliberate intent. Accounts from both countries agree in stating that the wounded are tended with the greatest humanity. It is asserted here, however, that several military surgeons who had been made prisoners at the outset of the war are still detained in Germany. The second ambulance, *l'Ambulance de la Presse* (with Marc Sée at its head), which had crossed the French lines, was also detained during eight days by the Prussians, and has only just returned—unhurt, and with all its *matériel* unimpaired.

It is asserted here, with what degree of accuracy I can scarcely warrant, that dysentery is now common among the Prussian troops, on account not only of their excessive fatigue, but of their peculiar mode of encampment, and of their too liberal use of the unripe grapes of the provinces which they have crossed.

Immense preparations are still going on for securing a large stock of provisions, in case the war reaches Paris. Large quantities of wheat have been gathered, which might be ground by the powerful machinery of the Assistance Publique bakery, or at the military establishments. Provisions of rice and other farinaceous food have also been made on a large scale. And, with regard to drinkables, it is said that the entrepots of Bercy contain wine and spirits for at least six months' use.

The health of Paris remains good. Small-pox is on the decrease, and diarrhœa is not more prevalent than it usually is at this time of the year.

Paris, August 24th, 1870.

THE HOSPITALS AND WOUNDED AT WOERTH.

(*Communicated by* W. ST. JOHN COLEMAN, L.C.P., L.R.C.S.I.)

STARTING from the head-quarters of the Crown Prince's army at Blamont, and armed with a special pass from His Royal Highness, I recrossed the Vosges, and, reaching the little mountain town of Ingweiller, put up there for the night. The emblem of humanity in war, the "red cross," depended from every house-top in the village, and from the numerous waggons and ambulances which choked the narrow streets. You met it everywhere, on officer and soldier alike. It was worn irrespective of nationality and independent of creed. The shopkeeper and citizen of Ingweiller wore it in common with the German philanthropist, who had made his difficult way from Unter den Linden to assist his wounded countrymen. In Ingweiller there is no hospital, and the surgeons have been forced to accept the better houses for accommodation instead. As my pass, or order, was directed to the principal medical officer at Woerth, I got up early and made my way over the mountain-road to Neiderbronn. The roadway was torn and broken up in parts; the fields adjoining were much trampled down, and had on them

unmistakable evidence of large bodies of men having passed over them. There were other signs, too—broken ammunition waggons and gun carriages, knapsacks broken open and trampled into the now hard mud. The same evidences obtained as far as Reichsofen. The leather helmet of the Prussian, with its brass bands and spike, the shako of the line French soldier, with the red fez of the Zouave were mingled together with arms, clothes, and accoutrements. The broken boxes of the mitrailleuse cartridges were on the wayside, and in the low stunted underwood in vast numbers, with the cartridge boxes belonging to the needle-gun and chassepot. The late active agents in the strife scarce lay hidden in the fresh turf mounds, and the stench that the breeze now and then brought reminded one how very soon the form and fashion of the warrior perisheth. The little church at Froschweiller is roofless, and its walls battered and broken down. It was on the height that it crowns that the fighting was severest. The hospital at Woerth is a little down below. It is a small quadrangular building, consisting of four large airy wards, having as many as eight windows to each ward, and each of them opening from the centre to each side. There were thirty patients in the hospital at my visit. The principal medical officer, who is comparatively a young man, introduced us to the surgeons of the respective wards, and they kindly showed and explained the cases. I made some hasty notes of the more interesting cases, which I append.

Wound of the Head and Neck.—Gunshot wound of right parietal bone; protrusion of brain-substance. This patient was brought in on the evening after the battle, and seemed to be in a dying state when seen. A deep gunshot wound, exactly median, cutting through, from before backwards, all the tissues down to the bone, which was denuded of periosteum. Granulating kindly; no bad symptom.

Wounds of the Face.—1. Case in which the ball entered externally by the left orbit, smashing the eye, and passing through the ethmoid bone, and out through the right maxillary, about the situation of the infraorbital hole. The right eye was deeply ecchymosed, and for a few days he had been only able to distinguish light from darkness with that eye. Ten days after injury he could see pretty well, and finds his sight improving daily. 2. A needle-rifle bullet entered the upper lip, at the *left* ala of nose, broke down the palate process of the superior maxillary bone, pierced the false palate on the *right* side of the uvula, and emerged at a point external to the fourth cervical vertebra. This patient received food through an œsophageal tube, and was doing well, the neck wound having closed, and that in the lip nearly so.

There were two remarkable wounds of the neck. In one the bullet had entered external to the sterno-clavicular articulation on the left side, and, merely "gliding" under the skin, had made its exit at a point about one inch superior to the middle third of the right clavicle. The surgeon in charge told me that he had passed a probe through the course of the wound immediately after the man's admission; and he had no reason to doubt the man's assurance, that, except the pain arising from the openings, the wound caused him no inconvenience. There was a very slight discharge from the lower or left wound. In the second case the bullet had gone through the neck, making its exit at a point nearly opposite its entrance. There had been considerable hæmorrhage at the time of injury, and oozing of venous blood occurred at intervals up to my seeing him.

Wounds of the Trunk.—There were two of the anterior part of the chest in which the ball had not entered. In the one, the sternum had been broken externally on the right side, and two pieces of bone had been extracted, the anterior mediastinum being exposed. The second and third ribs had been fractured in the second case.

The question which has been discussed so often with respect to the erratic course of the old round ball, and the direct penetration of the conical, is raised by the following case:—A needle-rifle bullet struck the breast of a Zouave—on the fifth rib in front—coursed along it, under the skin, and emerged over the apex of the scapula on the same side (the right). The surgeon, who had satisfied himself by passing a bougie in the track of the wound, told me that he felt slight, very slight, crepitus of the scapula at the seat of wound. This man never experienced any dyspnœa or any other symptom to indicate that the lung had been touched. There were three cases of wounds in the neighbourhood of the shoulder-joint, two with entry and exit, and one in which the acromion process had been smashed, and the ball, entering the shoulder-joint, still remained there. In this case there was considerable swelling, with slight blush, and the man was hectic.

The power of resistance of which bone is capable was demonstrated in a case in which a bullet had entered externally in the fleshy part of the forearm. It was extracted from under the skin, about three inches lower down, and was found to be flattened, the radius remaining intact.

The injuries of the lower extremity do not call for any special remark.

I cannot conclude this notice without expressing my thanks to the principal medical officer and surgeons of the hospital at Woerth for the kindness with which they exhibited the cases under their care to me. And I have to add my belief that under abler or more careful hands the wounded of either army could not have fallen.

Woerth, Bas Rhin, August 16th, 1870.

Obituary.

JOHN WILSON, M.D., R.N., F.R.S.,

HONORARY PHYSICIAN TO THE QUEEN.

WE lament to record the death of the above gentleman, who died at the mature age of eighty-two, after long and varied services which had caused him to spend many years in unhealthy climates. He entered the Royal Navy in 1813, and the first fourteen years in it were passed chiefly in the West Indies, where he acquired familiarity with yellow fever and its treatment. In 1827 he first became an author, and published "Memoirs of West Indian Fevers."

Devoted to his profession, Dr. Wilson became eminent by his acquirements, and when Sir Gilbert Blane left a bequest of an annual gold medal to the surgeon who presented the best medical and topographical journal for the year, he had the honour of being the first selected (in 1835) for that distinction, which has been so advantageous in creating emulation that we have now an "Alexander medal" for army medical officers, and a "Beaufort medal" for the executive officers of the navy, instituted with similar intent.

Dr. Wilson was next employed at the Admiralty in compiling the earliest statistical records of disease on the various naval stations; and it is probable that it was at his suggestion that a system was commenced which has taken a wider extent in his service, and was later engrafted in the army, producing blue-books of great professional interest and value.

When war broke out in China in 1840, he was selected for promotion to the rank of medical inspector of that station, where he remained through the hostilities, and returned home with shattered health; but he soon gave to the profession "Medical Notes on China," which long held the position of text-book for practitioners in that remote, and then little known, part of the world.

His next service was at Haslar Hospital in 1849–50, to which service we are indebted for a short but useful paper on the "Treatment of Cholera in the Royal Hospital at Haslar." In 1855 Dr. Wilson was appointed to the charge of the Royal Infirmary at Greenwich, where he continued to practise clinically until, on account of age, he retired from active service in 1861, when he was awarded a good service pension of £100 a year in addition to his half-pay.

Dr. Wilson is an instance of a medical officer who went through a long career always increasing his influence, founded on high professional reputation. In his day of active service the distinction of the Order of the Bath was not given to medical officers; and when at last it was conceded to them, he was on the retired list, and his services were forgotten. But it is said that he had been previously offered knighthood, which he then declined. His aspirations were entirely professional, and he had higher pride in his scientific distinctions than any mere reward of war service, however faithfully earned, as in his own case, can bestow. He leaves a name that will find a place near those of Lind and Blanc in naval medical history.

JOHN ADAMSON, M.D.

THE ancient university town of St. Andrews has lost an able practitioner, a philanthropic citizen, and an accomplished and genial man in Dr. John Adamson, who died on the 12th inst., during a holiday residence in the Highlands. He was born in St. Andrews, and received his academic training at its university. Thence he proceeded to Edinburgh, where he passed with distinction through the medical curriculum, and in 1829 became a Licentiate of the Royal College of Surgeons. After visiting the medical schools of Dublin and Paris, he practised in India and China, and in 1835 he settled in St. Andrews, where he graduated as Doctor of Medicine a few years afterwards. His success as a practitioner in St. Andrews and Fifeshire was rapid and great; no medical man in the county was more frequently summoned in consultation; till of late years his practice became so extensive that he had to seek a colleague in his accomplished friend, Professor Oswald Bell. In spite of the many demands upon his time, however, he yet found leisure to cultivate his fine aptitude for science. In natural history, particularly, he was remarkably proficient, and in chemistry his knowledge was so comprehensive and exact that, during the illness of the professor of that department in the University, he lectured in his stead with much popularity and effect. Natural philosophy was also a favourite study of his; and he delivered more than one course on the subject to the young men of St. Andrews. In conjunction with Sir David Brewster he may be said to have introduced photography into Scotland, and all his life he prosecuted the art with a success which amply justified his zeal. Sanitary improvements absorbed much of his attention; and, aided by the official authority of Sir Hugh Lyon Playfair, for many years Lord Provost of the city, he contributed much to make St. Andrews the model of cleanliness it has long been among the health-resorts of the Scottish seaboard. The welfare of the community was an object ever near his heart, which recognised no distinction between rich and poor; and, characteristically enough, the best of his too scanty contributions to the literature of his profession are those on that great department of State medicine, "Preventable Disease." The museum now owned in common by the University and by the Literary and Philosophical Society contains not a few memorials of his culture, which was as liberal as his hand; but his best monument will be the place he holds in the remembrance of his fellow-citizens, who will not fail to keep in fond recollection the accomplished physician, whose presence among them is as greatly missed as it could little have been spared.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 18th:—

Hosegood, Samuel, Williton, Somerset.
Joseph, Joshua Raphael, Merrick-square, Borough.

The following gentleman also on the same day passed his first professional examination:—

Jackson, Thomas William, Guy's Hospital.

DR. ROSE CORMACK, having some time ago passed the usual examination, was formally admitted, on the 4th inst., by the Faculty of Medicine of Paris, to the degree of Doctor. Dr. Cormack's thesis is entitled "De l'Entrée de l'Air par les Orifices Béants des Veines Utérines considérée comme Cause de Danger et de Mort."

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE EXAMINATIONS, 1869-70.—Senior Scholarship (£50) in Medicine, Surgery, and Midwifery, A. H. G. Doran. Senior Scholarships in Anatomy, Physiology, and Botany: 1 (£50), G. W. Burn; 2 (£25), M. Groves. Jeaffreson Exhibition (£20), tenable for two years, F. B. Brodribb. Junior Scholarships: 1 (£50), C. Firth; 2 (£30), T. H. Sawtell; 3 (£20), R. W. Leftwich. Kirkes's Gold Medal, A. E. Kumberbatch. Practical Anatomy, Senior: Foster Prize, W. Furner; certificates, 2, W. Fairbank; 3, A. C. Horner; 4, H. Gibbs; 5, F. Scaife; 6, J. Strafford; 7, A. Godfrey; 8, J. D. Harris; 9, G. W. Burn; 10, C. F. Murrell; 11, A. L. Sobey; 12, H. E. Bridgeman. Practical Anatomy, Junior: Treasurer's Prize, J. F. Dixon; certificates, S. Andrews, H. A. Nicholls, and J. L. Whitsed, equal; 5, T. H. Sawtell; 6, C. Firth; 7, W. T. Whitmore; 8, J. Adams; 9, R. W. Leftwich.

LONDON INSTITUTION.—On the 10th inst., J. P. Gassiot, D.C.L., F.R.S., destributed the prizes and certificates obtained by students in the examinations based upon the courses of educational lectures delivered during the past session by Professors Guthrie, Bloxam, and Bentley. Dr. Gassiot stated that the coming session would be opened by Professor Odling, with a course of eight lectures "On Chemical Action," and that after Christmas Professor Huxley would give a course "On the First Principles of Biology."

THE silver medallion of the Royal Humane Society was last week unanimously voted to Miss Ida Cummins, a young lady of eighteen, for saving Mrs. Jack, wife of Dr. Jack, R.N., from drowning at Queenstown.

THE VOLUNTEER CAMP AT SHOEBURYNESS.—The medical officers on duty at the camp were Dr. Davies, 1st Sussex Artillery Volunteers, and Dr. Willing, 7th Essex Royal Volunteers. The hospital arrangements were very good, and the sanitary state of the camp all that could be desired. There were several cases of diarrhœa amongst both officers and men. There were also three cases of accident, all of which did well.

RELIEF FOR THE SICK AND WOUNDED.—A party of five ladies has left London to join the Prussian army at the seat of war, as nurses, under the auspices of the English Branch of the Société International, to which we have so often alluded. Up to the present time no request for lady nurses has been forwarded from the head-quarters of the French army, and, therefore, none have been sent. The ladies who have gone out have been carefully trained in hospital practice, and have had opportunities of gleaning some experience on the field of battle.

THE fortieth annual meeting of the British Association for the Advancement of Science will be held in Liverpool, commencing on Wednesday, September 14th, 1870; Professor Huxley, LL.D., F.R.S., president.

HÆMOSTATIC DRESSING OF WOUNDS ON THE FIELD OF BATTLE.—It is said that every French soldier has been given a little parcel, the size of a cartridge, which contains a linen bandage, a compress, and a pledget of lint rendered hæmostatic by being dipped in a solution of perchloride of iron. Although surgeons and their attendants are quickly at hand, the number of wounded is so great that giving them a way of arresting hæmorrhage is of importance.

DEATHS FROM SUNSTROKE.—Two deaths from exposure to the sun took place recently in Cork, owing to the extreme heat which has lately been very oppressive in the south of Ireland. One of the cases was taken to the hospital, but died about five minutes after admittance. Last week another case occurred. A labourer in Sligo, whilst making hay, removed his hat for a few moments, when he was seen to fall, and although medical aid was procured, he died two hours afterwards.

NEW ASYLUMS FOR IMBECILES.—The Metropolitan Asylum Board have, through their clerk (Mr. Jebb), intimated to the various boards of guardians for the metropolis that the two asylums built by them for the reception of imbeciles, at Leavesden and Caterham, will very soon be ready for the admission of patients.

RED TAPE IN PARIS.—"L'Opinion Médicale," of Paris, is loud in its complaints respecting the minor officials who come in contact with the medical men who, burning with patriotism, ask for employment. Medical students are received with cold indifference at the military hospital of Val-de-Grâce. The Commissariat officers are showing the most abject ignorance of hospital management, and throw every obstacle in the way of the *personnel* of the ambulances sent out by the powerful Society for Help to the Wounded.

Medical Appointments.

BARBER, Mr. A., has been appointed Dispenser and Assistant to the Resident Medical Officer at the Kensington Dispensary, vice Mr. Henry Wm. Roope, deceased.

CORFIELD, W. H., M.B., M.R.C.P.L., has been appointed a Physician to the St. Pancras and Northern Dispensary, vice David A. Morsey, M.D., resigned.

DRAPER, W., M.D., has been appointed Physician to the Christchurch Hospital, Canterbury, New Zealand, vice James S. Turnbull, M.D., resigned.

DE LISSER, J., F.R.C.S.E., has been appointed House-Physician at Guy's Hospital for Oct.—Dec., vice Higgins.

DIXON, J., L.R.C.P.Ed., has been appointed Assistant to the Extra Physicians of the Royal Hospital for Sick Children, Edinburgh, vice Dr. Alex. Gordon, resigned.

MACDONALD, G., L.R.C.P., L.R.C.S.Ed., late Parochial Medical Officer, Delting and Northmavin, Shetland, has been appointed Joint Parochial Officer, and Certifying Factory Surgeon, Markinch, Fife, vice W. Baillie, L.R.C.P., resigned.

NICHOLLS, W. H., M.R.C.S.E., has been appointed Resident House-Surgeon at the Brighton and Hove Lying-in Institution, vice Edwin Renshaw, M.R.C.S.E., resigned.

ORCHARD, T. N., M.B., has been appointed Junior House-Surgeon at the Ardwick and Ancoats Dispensary, Manchester, vice John F. Walkingame Tatham, L.R.C.P.Ed., appointed Assistant Medical Officer at the Salford Union Workhouse.

SMITH, Mr. G., has been appointed Visiting Assistant to the Newcastle-on-Tyne Dispensary, vice J. G. Black, M.R.C.S.E., resigned.

THORPE, Dr. T. E., of Owens College, Manchester, has been elected Professor of Scientific Chemistry at Anderson's University, Glasgow, vice Dr. Penny, deceased.

VINCENT, O., M.R.C.S.E., has been appointed Surgeon to the Great Northern Hospital, vice H. Arnott, F.R.C.S.E., resigned.

WALLIS, A. J., M.R.C.S.E., has been appointed Medical Officer for the Dartington District of the Totnes Union.

WOOD, Mr. R. A. H., has been appointed Resident Accoucheur at the Liverpool Lying-in Hospital.

Births, Marriages, and Deaths.

BIRTHS.

CHURCHILL.—On the 20th ult., at the Military Hospital, Cape Town, the wife of Dr. A. F. Churchill, Army Medical Staff, of a son.

CREIGHTON.—On the 16th inst., at Banderan, Co. Donegal, the wife of Robt. Creighton, M.R.C.S.E., Surgeon H.M.'s Ship "Wivern," of a daughter.

GLOVER.—On the 20th inst., at Compton-terrace, N., the wife of James Grey Glover, M.D., of a daughter.

ILIFF.—On the 20th inst., at Kennington-park-road, the wife of Wm. Tiffin Iliff, M.D., of a daughter.

PALATIANO.—On the 21st ult., at Malta, the wife of G. Palatiano, M.D., Staff Surgeon Army, of a daughter.

PEARSON.—On the 15th inst., at Upper Phillimore-place, Kensington, the wife of D. R. Pearson, M.D., prematurely, of a daughter.

RICKARDS.—On the 19th inst., at Cavendish-place, the wife of W. Rickards, M.D., of a daughter.

ROBERTS.—On the 20th inst., at the Elms, Coningsby, Lincolnshire, the wife of Thomas Andrew Roberts, M.R.C.S.E., L.S.A., of twin sons.

SMITH.—On the 22nd inst., at Sydenham-place, Sydenham, the wife of Robt. Smith, L.F.P. & S. Glas., Assistant Colonial Surgeon, Freetown, Sierra Leone, of a son.

MARRIAGES.

ATKINS—WRENCH.—On the 16th inst., at Yelvertoft, near Rugby, Alfred Wm. Gordon Atkins, M.D., son of Alfred Thomas Blucher Atkins, M.R.C.S.E., of Hadleigh, to Emily Hester, daughter of J. Wrench, Esq.

DRURY—FERRY.—On the 24th inst., at Bishopwearmouth Parish Church, Charles D. Hill Drury, M.D., of Pulham St. Mary, Norfolk, to Fanny, second daughter of Robert Ferry, Esq., of Sunderland.

MCFALL—CLARKE.—On the 23rd inst., at Christ's Church, Bridlington Quay, David Chambers McFall, 34th Regiment, to Frances Elizabeth, second daughter of the late Commander E. J. Bellenden Clarke, Royal Navy.—No Cards.

NOBLE—WETHERELL.—On the 23rd inst., at Matlock, Bath, Samuel Clarke Noble, Surgeon, of Kendal, to Mary Ellen, daughter of Robert Wetherell, Esq.

RICKARD—MOBERLY.—On the 9th ult., at Masulipatam, India, Frederick Martin Rickard, Assistant-Surgeon H.M.'s Indian Army, son of W. M. Rickard, Esq., of Stoke Devonport, Devonshire, to Frances Henrietta, eldest daughter of Colonel F. J. Moberly, Royal Engineers.

DEATHS.

ALSOP.—On the 12th inst., at Douglas, Isle of Man, E. Alsop, M.R.C.S.E., of Uttoxeter.

ASHFORTH.—On the 10th inst., (suddenly, of aneurism of the aorta), at Anglesey, near Gosport, George Morris Ashforth, M.D., late of Market Overton, Rutlandshire. Friends at a distance accept this intimation.

BENNETT.—On the 12th inst., Samuel Bennett, L.R.C.S.I., of Braff, Co. Limerick, aged 63.

HUTCHINSON.—On the 9th of ult., at Belle-Ombre, Wynberg, Cape of Good Hope, James Hutchinson, F.R.C.S.E., formerly Secretary to the Medical Board, Calcutta.

MACLAREN.—On board the homeward-bound West India Steamer "Seine," Peter MacLaren, Surgeon, of Williamfield, Maudeville, Jamaica.

WELBANK.—On the 20th inst., Richard Welbank, F.R.C.S.E., of Clarence-place, Kilburn, formerly of Chancery-lane, aged 73.

Notes, Short Comments, and Answers to Correspondents.

THE SCOTCH QUARTERLY RETURN.

THE Report of the Registrar-General for Scotland on the birth and death statistics for the June quarter states that, under the influence of exceptionally fine weather, the sickness and mortality, which had been very great during the first quarter of the year, rapidly diminished. The health of the Scottish population was considerably better than the standard average of ten previous years. It is remarked that the registered death-rate in Scotland was exactly the same as in England during the quarter; but the northern registration official expresses doubts whether this uniformity is not apparent rather than real in consequence of deaths escaping record south of the Tweed. We are thus reminded of one of the many anomalies against which we continue to protest—namely, that registration of births and deaths is compulsory in Scotland, but not in England. The mischievous absurdity of such a distinction is self-evident; but we have no present ground of hope that our registration arrangements will be remodeled on the principles of common sense. Official *vis inertiæ* is hard to overcome. As the Scotch Registrar-General appears to be aware of the deficiencies of Somerset House, it is only right that he should be reminded of those of his own department. The English Quarterly Return is in every respect superior to that of Scotland; its matter is better arranged, and it is far more comprehensive in the information afforded. In truth, for sanitary purposes the one is almost all that can be desired, while the other is just the contrary. It really does strike persons outside the official circle as remarkable that there should be so little harmony between two officers exercising exactly similar functions in the two divisions of Great Britain as that they cannot agree to publish their statistics uniformly so as to facilitate comparison. The natural inference is that the sooner these matters are brought under the sole control of a central authority for the whole kingdom the better.

Medical Student.—Dr. Barnes's treatise, or that by Dr. Churchill, would probably suit our correspondent.

A. A.—The paper shall be inserted in our next impression.

SOLDIERS' WIVES.

To the Editor of THE LANCET.

SIR,—At Woolwich, the head-quarters of the large and distinguished regiment to which I have the honour and pleasure of belonging, the following statistics, illustrating the medical histories of soldiers' wives, were recently collected; and from the fact that, as children, wives, and mothers, these women have been located, not merely in camps and garrisons at home, but also in Australia, Barbadoes, Bermuda, Canada, Cape, Ceylon, China, Gibraltar, India, Malta, Mauritius, New Zealand, and St. Helena—there undergoing the various hardships incidental to climate and military service,—some curious points of professional interest come under observation.

Out of 500 inquiries: 1 woman menstruated for the first time at nine years of age; 1, at ten; 13, at eleven; 57, at twelve; 98, at thirteen; 108, at fourteen; 221, at fifteen; 116, at sixteen; 62, at seventeen; 34, at eighteen; 17, at nineteen; 8, at twenty; 3, at twenty-one; 1, at twenty-two. 4 women menstruated after marriage, at the ages of fourteen; 2, at seventeen; 1, at nineteen, respectively. 1 woman did not menstruate until after the birth of first child, and at the age of seventeen.

Out of 500 inquiries: 38 women married at the age of seventeen; 15, at sixteen; 10, at fifteen; 5 (abroad), at fourteen; 3 (abroad), at thirteen and a half. 20 women were barren, 93 had phthisical histories, and about 9 per cent. menstruated during lactation. As regards nursing, the average period was twelve months, 5 women were too weak, and 3 women had no nipples to nurse with; 1 woman nursed two years and seven months; 3, two years and a half; 38, two years; 18, twenty-two months; 57, eighteen months.

Out of 500 inquiries: 180 women aborted; 10, three times; 6, four times; 2, five times. Causes at various times assigned: washing, lifting boxes, wringing clothes, constitutional weakness, worry, habit, early marriages, marches, falls, fatigue, travelling, running, jumping, laughing, dancing, dysentery, scarlatina, quarrels, carrying another child, very hot or cold weather, tooth extraction, constipation, bronchitis, sea-sickness, taking an emetic when suffering from ague, fright of fire, shipwreck, thunder, seeing a man killed, an epileptic, a runaway horse, an exciting play, also being chased by men, dogs, and wolves, hearing bad news, the presence of rats on board-ship, and having a pocket picked.

As regards soldiers' children, 450 inquiries: 1 child commenced teething at the age of two years and a half; 1, at two years; 1, at eighteen months; 1, at seventeen months; 1, at sixteen months; 4, at fifteen months; 5, at fourteen months; 6, at thirteen months; 20, at twelve months. Teething was associated with diarrhœa in 138 families; convulsions in 70; eczema in 15; otorrhœa in 19; bronchitis in 13; ophthalmia in 6; ulcers in 3; boils in 3.

I am, Sir, yours truly,

FRANCIS H. HOGG, M.D., Royal Artillery.

SOUTHAMPTON.

IN reference to our remark last week upon the odd division of the year adopted in the health reports for Southampton, Dr. MacCormack informs us that this arises from the fact that he has been required to make the dates of his reports correspond with certain fixed days for the quarterly meetings of the Corporation. If it were of any use to reason with a Corporation, we would point out that this instruction to their health officer renders it impossible for him to avail himself of the Registrar-General's Returns for necessary purposes of comparison.

THE INSTITUTION FOR IDIOTS AT LUCAN, NEAR DUBLIN.

FROM the Report of the Managing Committee of this deserving charity, we learn that the institution contained in June last 25 children—viz., 14 boys and 11 girls, of whom 9 are free; a portion of the cost of care and maintenance, varying from £2 10s. to £15 a year, is paid by the relatives of 9 others; and the entire by those of the remainder. The numbers were further increased on August 1st by 8 more, 4 free, and the rest partially provided for by friends. The Committee state that the progress of the children is satisfactory, and that an experienced teacher, who has been for several years in the Western Counties Asylum at Devon, has been added to the staff, under whose care still further progress has been made in their training. The Government inspectors and other visitors have expressed their approval of the management of the institution. In their last Report the Committee stated the circumstances which rendered it advisable to remove from their premises at Lucan. Since then they have arranged to remove to a more commodious locality. The new premises consist of a house and demesne at Palmerstown, within five miles of the General Post-office. There are 47 acres of land attached, and a plentiful supply of good water. The Committee intend to allow a ward to be opened for the reception of epileptic patients, the funds of which shall be kept perfectly distinct. In this department no patient shall be admitted until a sufficiently large sum has been obtained to cover the cost of their care and maintenance. We wish the promoters of this excellent concern every success, and have no doubt that its career will be one of usefulness, and that it will prove a benefit to the afflicted class for whom it is intended.

Mr. Henry Morris is thanked for his paper, which shall receive our consideration.

P. C. S. should communicate his grievance at once to the Poor-law Board.

THE TREATMENT OF SCARLATINA.

To the Editor of THE LANCET.

SIR,—As Dr. Sweeting is not satisfied with the answers from your other correspondents on the above subject, I take the liberty of giving you the result of my experience.

I have been in practice a little over eight years, and have attended rather more than 400 cases of scarlet fever. My treatment has been to induce good action of the skin, which I have effected by means of hot baths and by the administration of liquor of acetate of ammonia, with a few drops of ipecacuanha wine. I have also been careful to have the bowels relieved by means of a gentle aperient, generally a saline draught; a well-ventilated room, and a diet of beef-tea and milk. The mortality has been rather less than two per cent.

Before I began practice I was engaged as assistant in large practices in London and other parts of the country, and the treatment of the medical gentlemen with whom I lived was, as a rule, very like what I adopt now.

I should think, from what I have seen of scarlet fever, that Dr. Sweeting's mortality has been excessive, unless the type of the disease has been more severe than I have met with.

Yours obediently,
Barnes, August 16th, 1870. JAMES ADAMS, M.D.

"THE TOMAHAWK."

WE are asked by *Mr. Arthur à Beckett* to state that, owing to the inability of the liquidator of the estate of Sir William Russell, Bart., to comply with an order of the Court of Bankruptcy in reference to the *Tomahawk*, he is forced to stop the publication of that periodical.

Mr. J. A. Thacker, (Cincinnati, Ohio, U.S.)—The paper shall be inserted in an early number. The Publisher shall attend to our correspondent's request.

An Old Subscriber.—If medical men will stoop to things so degrading to the profession as the publication of handbills, we cannot hope to retain public respect. The specimen forwarded is most objectionable.

THE communication of *A. B. C.* (Glasgow) shall have early insertion.

INFLUENCE OF ATMOSPHERIC AIR ON WOUNDS.

To the Editor of THE LANCET.

SIR,—While I felt content to look upon myself as in a very small minority in respect of belief as to the effects of pure atmospheric air on wounds,* I did not anticipate the pleasure of finding that all I have publicly or privately expressed on the question is in perfect harmony with the views of Mr. Skey, as I find them stated in your impression of last week.

That it is living textures that we have to deal with is an important feature in this question, which seems to me to be quite overlooked by very many.† It is vitality that prevents our entire bodies from decomposition; and to the extent that vitality of the part is depressed, to that extent does decomposition ensue. Suppuration cannot take place apart from certain well-known pathological conditions that depress vitality. Hence, while there is no depressed vitality pure atmospheric air can have no particular effect other than the trifling irritation that might ensue from lowered temperature. But when the vitality is so depressed that the part is unable to resist atmospheric influence, the oxygen of the atmosphere reduces the tissues from their more complex to their elementary or ultimate form; and the sooner this happens the better for the repair. That appears to me to be the essence of this *quæstio vexata*. If the views of Mr. Skey and those who believe with him were more generally adopted, we would be spared a great deal of sensational surgery, and less intellectual energy—energy which, no doubt, might otherwise be turned to a good purpose—would be dissipated in the invention of mechanical contrivances for the exclusion of that beneficent compound in which we live, move, and have our being.

I am, Sir, yours obediently,
Glasgow, August, 1870. D. CAMPBELL BLACK.

* *Vide* Antiseptic Surgery. THE LANCET, vol. ii., 1869.
† Observations on Therapeutics and Disease. Churchill and Sons.

A PUBLIC MORTUARY AND POST-MORTEM ROOM.

THIS necessary provision has been made by the vestry of St. Mary, Stratford, Bow, in the churchyard of that parish. The erection is at once architecturally creditable and commodious; and the site is unobjectionable. The building is situated to the east of the church, and is approached by an inclined path, with a turfed slope on either side. Parts of the churchyard immediately contiguous have been tastefully laid out and planted with evergreens. The building is sunk three feet in the ground, and has an air chamber running entirely round it, ventilating grates being inserted at intervals. All the materials used are good and durable. The walls internally are of Portland cement; the floor is of planed slate, and there is a solid slate table for post-mortem purposes. Water is laid on by means of one of Dalziel's patent regulating taps, without the uncertainty and loss of space which a cistern involves. The arrangements for drainage, too, are good. In the wall opposite the door are brackets for four coffins. The dimensions are only 13 feet by 9, and yet all necessary accommodation has been secured. The total cost has been £236—a sum which appears moderate when the ornamental and useful character of the mortuary is considered. It is a great achievement to have made such a house pleasing to look at. We commend the mortuary of St. Mary, Stratford, to the imitation of other vestries and parishes. The architects were Messrs. Hills and Fletcher.

A Young Surgeon should immediately go out to the battle-field.

SALARIES OF POOR-LAW MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—Having waited in vain for an answer from the Edmonton Board of Guardians to my letter of December 27th, 1869, I thought I would publish the enclosed correspondence in THE LANCET, by way of contrast to the case of "A Liberal Board of Guardians," communicated by Dr. Maxwell, and appearing in your journal of January 1st of the present year.

I remain, Sir, yours truly,
Oak House, Enfield, August 17th, 1870. JAMES COLLYER.

[COPY.]
Oak House, Enfield, December 13th, 1869.

GENTLEMEN,—I think it must have been apparent to all members of the Board who have visited the Enfield Workhouse during the last two or three years that the duties and responsibility of the medical officer have largely increased. Under these circumstances I write to request the Board kindly to take into their consideration the propriety of increasing the salary after the present quarter.

I believe the salary has never been altered since the appointment was first made, although the number of inmates is much larger than formerly (at present time 345), the sick-rate much higher on account of the large proportion of unhealthy admissions, and the addition to duties of workhouse medical officer recently required by the Poor-law Board must also be taken into consideration.

The Board will allow that it is necessary for the house to be visited daily; the salary of £20 per annum is a fraction over 1s. 1d. per day, and during the last two years the number of patients has varied from 30 to 55; so that I may safely say that I have had the medical charge of three patients per penny per day; and if the Board will consider all the other duties required of a medical officer, I think they will acknowledge that the remuneration is not a reasonable one for a professional man.

I must add that the extra fees in a children's workhouse amount to a very small sum. I have received but £8 during the five years I have held the appointment. I am, Gentlemen, your obedient servant,
JAMES COLLYER.

To the Chairman and Board of Guardians of Edmonton Union.

[COPY.]
Edmonton, December 22nd, 1869.

DEAR SIR,—I am directed to transmit to you the following copy of a resolution agreed to at a meeting of the Board held on the 22nd day of December instant—viz.:

"Resolved—That, having regard to the time during which Dr. Collyer is occupied throughout the year in his attendance upon the children at the union schools, as shown by the porter's attendance book, and with every disposition to give attentive consideration to his application, the Board do not think that there is sufficient evidence before them to warrant any addition to his present salary of £20 per annum."

I remain, dear Sir, yours truly,
Dr. Collyer, Oak House, Enfield. WILLIAM PULLEY, Clerk.

[COPY.]
Oak House, Enfield, December 27th, 1869.

GENTLEMEN,—It is necessary for me to make one remark on the resolution agreed to at a meeting of the Board held on the 22nd inst. I decline to be in any way judged by the evidence, requiring proof, upon which the Board refused to accede to my request for an increase of salary. The times of my visits to the workhouse as entered by the old pauper who acts as porter are not correct. Mr. Tye has kindly favoured me with some of the entries for the present month. I select four days to verify my objection.

Dec. 2nd.—Porter's time, 1; left at 1.25. True time, 1.30; left at 2.15.
Dec. 4th.—Porter's time, 10.15; left at 10.30. True time, 8.30; left at 3.50.
(On December 4th I was engaged at an inquest in the morning, and did not visit the workhouse till the afternoon.)
Dec. 14th.—Porter's time, 4.40; left at 5. True time, 4.10; left at 5.20.
Dec. 21st.—Porter's time, 11.15; left at 12.30. True time, 12; left at 12.50.

But, in my opinion, the time occupied is a matter of very secondary importance. It is the rule for professional men to be remunerated in proportion to responsibility incurred, duties required, and mode in which those duties are performed.

For my own satisfaction, I beg to inform the Board that my attendance at the Enfield Workhouse occupies an average time of thirty-five minutes a day; and remain, Gentlemen, Yours truly,
JAMES COLLYER.

To the Board of Guardians of Edmonton Union.

THE "PECULIAR PEOPLE" AGAIN.

THE existence at this day, and in close proximity to the metropolis, of a community or sect whose distinguishing tenet seems to be that they forswear the aid of medicine in disease, trusting only to prayer and anointing with oil for the restoration of the sick, is one of those anomalies which are hard to be reconciled with the doctrine of the progressive civilisation of our race. As a natural consequence of this method of dealing with disease, it happens now and then that the issue is fatal, and several members of the sect have had to appear in the Police Courts in reference to the deaths of their children, alleged to have resulted from the want of proper medical attendance. We had occasion not long ago to express dissatisfaction with the action of an Essex bench of magistrates, who in one of these cases held the offence proved, but discharged the defendant without a sentence. We pointed out that the tendency of this decision would be to deprive infant life among these "Peculiar People" of its proper safeguard. Our surmise was correct. Two "peculiar" parents at Woolwich have just become the subjects of a verdict of "manslaughter" in the Kentish Coroner's Court for allowing their infant son to die of diarrhœa, which medical evidence declared might have been arrested if the ordinary remedies had been administered. The case then came before the Woolwich police magistrate, who took a wiser view than the Solons of Essex had done, and, disregarding the absurd attempt of the prisoners to justify their conduct by quotations from Scripture, committed them for trial. For the sake of the infantile portion of their community, we trust that "peculiar" fathers and mothers will on this occasion be taught a lesson that will henceforth open their eyes to the danger of fanatical experiments with human life.

SOCIETY FOR AID TO THE SICK AND WOUNDED IN WAR.

THE following subscription has been received on behalf of the above:—

E. J. Miles, Esq., Gillingham £2 0 0

G. S.—They are structurally different, the compact tissue of bone existing in the shaft, the softer spongy texture in the epiphysis; and the system by which they are nourished is likewise different.

Medicus, (Llanfyllin.)—Yes.

L.M., (Maidenhead.)—The matter shall receive attention.

GORDON'S SPLINT.

To the Editor of THE LANCET.

SIR,—In answer to an "American Surgeon," allow me to say that he can obtain Gordon's splint at Coxeter's, Grafton-street, and that he will find an article upon it by Mr. George Porter, of Dublin, in the *Dublin Quarterly Journal* for May, 1863. The palmar splint is hollowed out to receive the forearm in the prone position, and has a convex ridge along its radial border, by which the fractured bone is maintained in position. The dorsal splint is expanded at its lower end, and also has a projecting lip along the radial border, by which the tendency to abduction, so prominent in Colles's fracture, is additionally obviated. I have found the splint very convenient and useful; and as it has not been hitherto figured in any of our surgical manuals, I have given drawings of it in the fourth edition of my "Minor Surgery," now in the press. Yours, &c.,

August, 1870. CHRISTOPHER HEATH.

To the Editor of THE LANCET.

SIR,—In your journal of to-day an "American Surgeon" writes, asking where Gordon's radial splint can be obtained, and for information with regard to it. The splint can be had from Mr. Adam Sloan, Israel-street, Belfast; and for information concerning it, I would refer him to the *Edinburgh Monthly Journal* for 1861, in which he will find an account of "The Treatment of Fracture of Lower End of Radius," written by Dr. Gordon himself; also to the *Dublin Quarterly Journal*, May, 1865, page 274, where Mr. Porter, of Dublin, has recorded his observations on this mode of treatment, with cases illustrative. Having for the last four years at the County Down Infirmary experienced the great advantages this splint possesses over all others hitherto devised for the treatment of Colles's fracture, I hope your correspondent will be the means of promoting, in America, the use of this valuable but as yet, I believe, little known splint.

Your obedient servant,

Downpatrick, August 20th, 1870. E. F. NELSON.

C. F.—A work on Military Surgery in the English language, and up to the present time, is much required. Prof. Longmore's article in Holmes's Surgery contains the latest information about gunshot wounds, and may be read in connexion with his official treatise on Ambulance and Sick Transport. A great many works, official and otherwise, have been published of late years by American surgeons. The volume of tracts on Surgical, Medical, and Sanitary subjects, contributed by different authorities in that country, contains useful information, and Prof. Hamilton's treatise on Military Surgery is a good one. The Germans, since the date of the wars in Schleswig Holstein and Bohemia, have published several excellent works bearing upon Military Surgery and Hygiene. Stromeyer, Langenbeck, Esmarch, Loeffler, Mass, Rose, and others have all written upon these subjects. It is to be regretted that no one has yet given us, in an English form, an epitome of their labours.

THE DEATH IN CARDIFF GAOL.

WE are requested to suspend further comment on the circumstances which the unfortunate man Howells came by his death until the results of Dr. Paine's proceedings at law against his local censors have been made public.

A Father should consult our Students' Number. It will be published on the 10th of September.

Mr. A. C. Barrett's (Grimstone, Lynn, Norfolk) paper has had (with many others) to stand over, but will appear shortly.

CHLORAL IN BURNS.

SOME French surgeons have lately been using, it is said with success, the hydrate of chloral as a local application to severe burns to allay the pain. M. Marjolin has also found it useful to give the drug internally in these cases.

UNQUALIFIED MIDWIFERY PRACTICE.

WE considered it right that Mr. W. H. Kempster should have the opportunity of replying to our annotation. We have now received a communication from *Dr. David Leslie*; but we do not see any necessity for inserting further correspondence on the subject.

A Student, (Guy's.)—The sad rumour we believe to be correct.

THE TWO COLLEGES, LONDON AND EDINBURGH.

To the Editor of THE LANCET.

SIR,—Recently I have been before the two examining boards of the Royal Colleges of Surgeons, and I wish to record my experience of the difference of treatment I, as an examinee, received at each College.

At London I was plucked, and at Edinburgh passed. At London the written paper led off with this question: "Describe the usual form of cancer affecting the testicle. Mention other structures which become affected during the progress of the disease. State the treatment which may be employed, and the probable result."

The last question on the paper was: "Myeloid disease. Describe the local appearance and the symptoms of myeloid disease. Mention its microscopic character. State the treatment, and the probable result."

There are six questions set, four of which must be answered, and three hours given to do it in. A few minutes before the *viva voce* part of the examination, the candidates were admitted into the examining-room to see where the appliances of surgery were arranged. Amongst the instruments there was a machine very much resembling a music-stool. What it was, or what it was used for, neither I nor any of the students round me knew, nor do I know to this day. The "look round" occupied about two or three minutes, just sufficient time to confuse a candidate. We were then sent out, and again called in; this time to meet the examiners, according to our numbers. I was introduced to a male negro, who was stripped, and lying on his back on a table, and was told by one of the examiners to suppose that this negro was a woman. He requested me to mark with a piece of chalk, on this negro, the incisions I should make for extirpating a diseased female breast. I made two elliptical lines over the mammary region, which appeared to dissatisfy my examiner because of their magnitude, whereupon Mr. Skey remarked, in a sarcastic tone, that it was a large breast. When I got to the tables, where the examiners were sitting in pairs, I was asked at my first table to name and describe some of the malignant growths which affect the human body. Amongst others, I mentioned glioma. My examiner said he did not know what glioma was, and he referred to his *confrère*, who also said he had never heard of it. When the bell struck, I went on to another table before two other examiners. Sir W. Fergusson was one. He picked up an os frontis which had an indentation in it about midway and a little above the frontal eminences. The cleft in the bone extended only through the outer table, and not through the inner. He asked me what it was. I replied, "An os frontis with a cleft in it, and a slight exostosis above the cleft." He then asked what I meant by an exostosis. I replied, "An outgrowth of bone." The gentleman beside him said, "Do you call that an outgrowth of bone? Have you never heard of war?" Of course the clue was given, and I replied that it was a sabre cut. "Ah," said he, "a cut with a shovel for all you know." His remark I thought was very true, but said nothing. Then Sir W. Fergusson gave me a humerus, fractured right through the surgical neck. The globular head of a normal humerus points to the same side as does the internal condyle; but this specimen had the head and neck separated from the shaft, and twisted round, so that it pointed towards a line drawn upwards from the external condyle. It appeared as if the bone had been broken clean through the surgical neck, and had been turned round and stuck on to the shaft by means of a wire, in just the reverse of the natural position. They asked me what that was due to. I am ignorant of the cause that could produce such a deformity in the living subject to the present moment.

The result of that examination was a plucking. I read but very little more, being engaged in general practice, and in three months afterwards went to Edinburgh. The written examination there occupied seven hours. The subjects of examination were—Traumatic Phlebitis, its Pathology and Treatment; a description of supra-condyloid fracture of the femur, the age at which it most frequently occurs, and its treatment, together with other questions of a similar practical character. The candidates also had written papers and *viva voce* questions on Surgery, Clinical Surgery, Medicine, Materia Medica, Forensic Medicine, and Midwifery. The *viva voce* part of the examination was conducted as follows:—I was shown into one of the wards of the Royal Infirmary, and had a case given me. After examining, diagnosing, and dressing my patient, I was asked into a private room, where there were two examiners. They then examined me upon the case. Afterwards I went into a large room in the College, and the remaining part of my *viva voce* examination was conducted by examiners in pairs, as in London, with this exception, that the subjects of examination were more numerous, and the questions asked were of a more practical character. Some of the questions related to popliteal aneurism, fractures and their treatment, deligation of arteries, along with the surgical anatomy of the parts.

Of eight candidates for the Edinburgh surgical diploma, one only was plucked. It is not an uncommon thing for half of the candidates at Lincoln's-inn-fields to get plucked.

To conclude, I think that of the two Boards, the one at Edinburgh at the present time is the most fair and practical; there are no catch questions put. The examiners are not so fond of sarcasm as are those at Lincoln's-inn. More time is allowed for answering questions than at London. By the way in which the examination is conducted in London, a man with but very small practical knowledge of his profession, but with a considerable amount of stuffing in technicalities, and acquaintance with unusually rare specimens, may be able to satisfy the examiners at the English College; but at Edinburgh they want to see that the candidate is capable of administering relief to suffering humanity in a practical manner, rather than that he should be able to diagnose between a case of encephaloid or sarcoma. The fee is less at Edinburgh, the legal status is equal, and to Englishmen who have never seen Edinburgh the trip is a treat, for Edinburgh is one of the fairest spots in this our island. I am, Sir, yours obediently,

August, 1870. A SUBSCRIBER.

SOLDIERS' BOOTS.

A LETTER lately appeared in *The Times*, urging that the reason why our troops could not march as well as those of the continent was owing to the rough, ill-made, ill-shaped, tough box into which the English soldier's foot is forced. Experience has shown that at the beginning of a campaign the British soldier falls to keep up, say, with the French; but this only continues a very brief time, and then the "marching powers" of English troops are quite equal, if not superior, to those of other nations. Now, whatever might have been the case years ago, it is not now the fact that our troops are badly shod, or that they are compelled to adapt their feet to tight, ill-fitting boots. We believe there are as many as from thirty to fifty different sizes of boots in store at the army clothing department, and a soldier has only himself to thank if he does not secure a size to suit him. They are also made on a good principle as regards the shape of the sole. Boots made by the British tradesman are, however, as a rule, awkward and heavy. It was Sydney Smith who said we should only learn in heaven the secret why shoemakers always managed to hurt you.

Inquirer, (Sheffield.)—Norton's Osteology for Students, or the work by Holden.

Mr. C. F. Harding's request shall be borne in mind.

CONFLICTING MEDICAL EVIDENCE.

To the Editor of THE LANCET.

SIR,—After my letter of last week I hoped that you would have readily discovered, and as freely acknowledged, the error of your strictures on me as a medical witness in a late number of THE LANCET. I have already said, and I repeat it, that you have misrepresented me. I speak for myself only, Dr. Donkin being quite able to defend himself should he think fit to do so. I did not ascribe the death in question to natural causes alone, although they existed abundantly; neither did I hesitate to admit that the most evident cause of it was loss of blood from the wounds on the head. What there was conflicting in my evidence, and there certainly was not much, was, I think, "justified by scientific doubt," and of a very palpable description too. If you think differently, it would be more satisfactory were you to give your grounds. You have only given a highly garbled sketch of the evidence, and thereby precluded the possibility of your readers forming an independent judgment. Your own, I confess, is not free from a suspicion of bias. I am, Sir, your obedient servant,

Bishop-Auckland, August 23rd, 1870. JOHN JOBSON.

*** We assure Mr. Jobson that we have no bias against him or anybody else. Our readers will judge whether his own letter is not the best justification of what we said.—ED. L.

A NEW INDIAN REMEDY.

A VERY favourable opinion is expressed by one of the graduates of the Grant Medical College, Bombay, Mr. N. Daji, of the medicinal properties of the Ailantus excelsa, a plant belonging to the order *Simarubaceæ*. Mr. Daji has given it largely, with success, in the form of an infusion, decoction, or tincture of the bark, in dyspepsia, anorexia, and torpid states of the digestive organs, under circumstances in which gentian and quassia are exhibited, and more especially in those cases of dyspepsia that follow fevers, such as are attended with muscular and nervous relaxation and constipation. The active principle, or ailantic acid, is said by Mr. Daji to have the power of increasing the flow of bile to a marked extent in those cases in which it is deficient. The remedy has been cursorily referred to by Indian writers, but has never been fairly tried as a medicine.

Dr. M. A. Adams, (Maidstone.)—Many thanks.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—I trust that your correspondent, "Spes," will not meet any support for his scheme; for by granting certificates of qualification to unqualified assistants, another and very dangerous portal to the profession would be added to the already existing ones. The existence of unqualified assistants is an evil, and is unfair to the body of qualified assistants, as, among other facts, it compels the latter to take lower salaries than they otherwise would were they not competing with the unqualified men. I sincerely trust that at this critical time no such retrograde movement as that advocated by "Spes" will be supported. I remain, Sir, yours, &c.,

August 17th, 1870. R. H. L.

DISEASE DISSEMINATION.

A CLERGYMAN near Leighton Buzzard instances a fact which, we fear, is not confined to the industrial community where it was noticed. Straw-plaiting enters so largely into the future occupation of children in those parts that schools, called "straw-plaiting schools," are specially devoted to instruction in the art. The medical officer of the neighbouring union found in one of those establishments a child ill of scarlet fever, lying in the corner of the room, which was crowded with other children diligently pursuing their craft. Twenty children out of a population of fifteen hundred have already died of that disease—a result sad indeed, but by no means astonishing when one considers how scarlet fever spreads, and what an admirable medium of infection straw, in the shape of hats and bonnets, cannot fail to be.

A. L.—Dropsy will often follow scarlet fever, in spite of the utmost skill, care, and attention.

Chloral is hypercritical. From the tenor and style of his own epistle, we should think him an appropriate subject for a homily on the text, "Judge not, that ye be not judged."

A., (Herefordshire.)—There is no infallible or even plausible test which a court of justice would be warranted in accepting.

Medicus.—As the fees accrued from services as *locum tenens*, the question is whether a legal claim could be substantiated. Our correspondent may refuse to act when the period of his tenancy shall have expired; and if he continue his services afterwards, he will have an equitable claim on half the fees.

A. B.—The name is adopted by the quack.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. S. Gamgee; Dr. Andrew Clark; Dr. Meadows; Dr. Playfair; Mr. Duncan, Glasgow; Mr. Renton; Mr. Borchert; Mr. Oulton; Dr. Burder; Rev. W. T. H. Kales; Dr. Leslie; Mr. De Liefde; Dr. Bell, Glasgow; Dr. Morris; Mr. Argles; Mr. Williams; Dr. Yarrow; Mr. Vincent; Mr. B. C. Jones; Dr. Martin, Warrington; Dr. Crowther; Mr. A'Beckett; Dr. Tylecote; Mr. Lowther; Mr. Spry; Dr. Willing; Mr. M'Fall; Mr. Price; Mr. Connolly; Dr. Prior; Dr. Goodchild; Mr. Hargreaves; Mr. Walker, Corwen; Mr. Stephenson; Mr. Jobson; Mr. Ashforth; Mr. Nelson; Mr. Wilkin; Dr. Thompson, Shanklin; Dr. Buchanan; Dr. Philip; Dr. Saul; Dr. Moffat; Mr. Warren; Mr. Hitchcock; Mr. Sheldon; Mr. Brown; Mr. Campbell; Mr. Watson; Mr. Robertson; Mr. Tiarks; Mr. Neville; Mr. Larmuth; Mr. Angus; Dr. Allen, Kingstown; Dr. Cresswell; Mr. Staff; Mr. Evans, Landovery; Mr. Smith, Langley Grove; Mr. Lamprey; Mr. Aitkens; Mr. Clarke, Llandrindod; Mr. Daniel; Dr. Davies, Llandovery; Mr. Lawson Tait; Mr. Prangley; Mr. Pearce; Mr. Payne, Calcutta; Dr. Campbell Black; Dr. Monro, Wigan; Mr. Baker, Andover; Messrs. Cooper and Chaurner; Mr. Day; Dr. MacCormack, Southampton; Mr. Thacker, Cincinnati; Dr. Struthers; Dr. Macnab; Mr. Curtis; Mr. Eager; Mr. Miles, Gillingham; Mr. Barrett; Dr. Macdonald, Markinch; Mr. Young; Mr. Dawes; Mr. Holtby; Mr. Reeves; Mr. Gerard; Mr. Copland; Dr. Drury, Sunderland; Dr. Broom; Dr. Drawer, Christchurch, New Zealand; Mr. Boden; Mr. Bruorton; Mr. Horsell; Mr. Unsworth; Mr. Lewis; Mr. Robinson; Mr. Rogers; Mr. Welch; Mr. Roberts, Conningsby; Mr. Marshall, Hull; Dr. Strange; Mr. Lever; Dr. Arnison; Dr. O'Connor; Dr. Marsden; Mr. Eccles; Mr. Grieve; Mr. Reilly; Dr. Butler; Mr. Sewell; Mr. North; P. C. S.; A Subscriber; T. M.; One who is Waiting; Ozokerit; A. B. C.; A Guy's Man; M.R.C.S., Farnham; W. T., Melbourne; Medical Student; G. S.; A. L.; W. B., Chatham; Beno; J. A.; Medicus; &c. &c.

New York Medical Journal, Brighton Gazette, North Wales Chronicle, Pharmaceutical Journal, Welshman, Cardiff Times, Gateshead Observer, Surrey County Times, Argus, Corner's Wellington Weekly News, Bedford Times, Bucks Herald, Liverpool Albion, Cardiff and Merthyr Guardian, Lincolnshire Chronicle, Cincinnati Medical Repertory, Wigan Observer, and *New York Medical Gazette* have been received.

Medical Diary of the Week.

Monday, Aug. 29.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Wednesday, Aug. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Sept. 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 3.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.